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J. R. LOGAN.

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* N.B.—Names of authors in CAPITALS; Geographical names in *Italics*;
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† The Roman figures refer to the number of the article in the table of Contents

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NOTES ON THE CHINESE OF PINANG.

THE manners and customs of the Chinese in Pinang are briefly portrayed in the following notes. With slight modifications, incidental to the different localities, I believe they form a tolerably correct picture of that interesting race in all parts of the Straits Settlement. In fact, they are so attached to the habits of their forefathers, that notwithstanding an intercourse for the last 60 years with natives of all countries, they have jealously adhered to their ancient customs, and no doubt the European settler in China would recognise in the "Baba" of Pinang and his peculiarities, a strong resemblance to his progenitors. It is not so with the Mahomedan and Hindoo settlers. These have gradually intermixed their religious ceremonies. To a Musjid in George Town, consecrated to the memory of a Mahomedan saint, both races subscribe indiscriminately and they imitate each other, as well as the

Chinese, on their holidays by firing crackers and beating gongs. On the continent of India they utterly despise and hate each other, and could not under any circumstances suffer a junction, especially in religious affairs. Caste is very much laid aside here. I have seen Mussulmen seated in the houses of orthodox Hindoos eating off the same board. The Hindoo also takes the Malay woman to wife. Such a proceeding in Bengal would render him an outcast for ever, but here he does not lose his caste. I have seen a Hindoo and Muslim bathe in the same tank, the water from the latter's body falling on the former, and vice versa. Such a sight in India would be a novelty indeed.

But to return to my subject. The Chinaman on landing in the Straits is called a "Singké" or new man or new friend, by the Chinchew, and "Sin Hak" by Macao men. These immigrants are thus obtained. One or more of the Chinese merchants charter a vessel and leave Pinang in April or May for Macao or Amoy. On arriving at the destined port, the charterer, who usually proceeds in the vessel as super-cargo, sets a number of agents to work. These men go about the country and cajole the unsuspecting people, by promises of a speedy fortune and return to their native land, to accept the bounty money, which varies according to the respectability of the victims. They are then huddled on board. The agents receive a dollar a head. The immigrants are usually over-crowded on shipboard but treated well on the whole. They arrive in the months of January, February and March. The anchor is scarcely cast when the resident Chinese flock on board to buy Singkés as they term it. The charterer gets for a master workman, either tailor, goldsmith or carpenter, 10 to 15 dollars, for a cooly 6 to 10, for a sickly man 3 to 4 or less. The Singké then agrees to serve for 12 months, receiving food, clothes and a few dollars for his services. Should he be an expert workman and fall in with a generous master, he may receive more than the sum agreed on. The Singké costs 2 to 4 dollars per mensem for food and clothing. If not paid for they are detained on board ship (if convenient) or in a godown, until a purchaser turns up. Should the charterers be forced to the latter alternative the Singkés are not well treated. Complaints have been lodged before the Sitting Magistrate at different times on this ground and the Singkés were set at large after signing a bond promising to pay the passage money.

Their agreements are generally faithfully fulfilled ; at the end of the 12 months the Singké is at liberty to enter his master's service on a monthly stipend or to seek his livelihood elsewhere. He is also then admitted into one of the Hoés, and into the Kongsee of his tribe. Very few Chinese remain clear of the Hoés, but as few will acknowledge themselves members it is difficult to arrive at the truth. From 2 to 3,000 Chinese land annually at Pinang and spread from thence to Province Wellesley and the Siamese and Malay territories.

The natives of Quang-tung are more robust and hard working than the Fuh-kien or Chin-chew and other tribes. All the carpenters, blacksmiths, shoemakers, and other laborious tradesmen are of the first; a few are goldsmiths, tailors and shopkeepers; they are excellent squatters and may be called pioneers to the Chin-chews. After completing their 12 months servitude as Singkés, many get an advance of money from their friends, soon clear a piece of forest land, plant vegetables, plantains and indigo at first, and eventually spice trees. After felling the jungle the ground is measured, boundaries fixed, and a grant obtained from the Government Land Office. The returns are so slow, that in a few years they are forced to sell their grants to satisfy creditors. Chin-chew men are the usual purchasers. The plantations which are at present in the hands of Chin-chew shopkeepers, were made by Quantung men. These last indulge in arrack and opium and gamble a little.

Fuh-kien or Chin-chew men are tailors, goldsmiths, shopkeepers, merchants and owners of spice plantations, and constitute the most wealthy portion of the native inhabitants. They are much addicted to gaming and opium.

A great many gamblers have been arrested and punished of late, who with few exceptions were natives of Fuhkien. Some of the most respectable, it is said, hold shares in the profits of the gaming houses. When a Quantung man imbibes the spirit of gambling, he is the more inveterate of the two, stakes higher, and will play away all he possesses ; he is looked for eagerly in the hells by the former, who are cool and wary.

Marriage.

Should the immigrant be successful in his career he naturally provides himself with a wife. His courtship and marriage are thus conducted. He must first apply to a professional bride-seeker

or matrimonial agent, who makes enquiries, and after finding an unmarried girl, whose parents are anxious to get rid of her, he sees her and waits on the young man with a description of the young lady and her family; should they be approved of, preliminaries are entered into by his sending his intended a gold ring—she returns a gold hair pin or other jewels and they are then betrothed. A fortune teller is consulted, who fixes the day, and a sum is agreed upon to be paid to the parents of the bride.

A leg of roast pork, some dollars, 2 bottles of arrack, 2 ducks, 2 fowls, a small box containing a paper filled up by the astrologer, in which he mentions the propitious day, and 2 candles ornamented with colored paper, are placed on Birman trays and conveyed by the agent to the girl's house.

She accepts one fowl, a duck, a slice of the pork, all the money and the candles, which are lighted at the birth of the first male child. Prayer is then offered to the family Tokong or Guardian deity, which is usually the picture of Confucius, or one of their deified countrymen or women, and the agent is told that the bride elect will be ready to receive her betrothed on the happy day.

In the interim the parents of the girl prepare her clothes and the bridegroom his house for her reception. On the marriage day prayer is offered to their respective Tokongs, and the man sends as much money as he can afford on a brass plate, together with 4 candles (one pair has a bird cut out in colored paper pasted on it, the other a dragon), a piece of paper containing the girl's name, the names of her parents, their ages and the birth place of each, another paper containing the same particulars regarding the bridegroom and his family, dry fish in 2 or 3 Birman plates, fruit of all descriptions, a silk sarong, 2 cotton sarongs, 2 pieces of white and 2 pieces of black cloth, 5 or 6 pairs of men's shoes, 5 or 6 pairs of women's shoes, 2 fowls, 2 ducks, a roast pig and a roasted goat, on several plates. The girl accepts 2 sarongs, 2 pairs of shoes, a piece of the pig, a fowl and duck, some fruit, the paper referring to her husband and a pair of candles. She returns the remainder, accompanied by a pair of shoes, a fan, a silk tie for his trowsers, a purse, 2 dollars, 5 gold buttons, 2 pomegranates tied together with silk thread and 2 bottles of lime juice, as a present from herself, and she places a rupee in each ear of the pig. After this the agent conducts the bridegroom and his friends to the bride's

house. Six men, dressed in long coats and peaked hats, receive them at the door and lead the bridegroom to the Tokong, which he worships ; they then point to a seat, which he takes. A little boy, dressed like the men, now enters with several cups of tea which he presents to the guests, every cup is emptied at a signal, cigars are then smoked and siri chewed. The boy then leads the bridegroom to the door of the bride's room, and the girl comes out to receive them. This is the first meeting and should the girl be hideous the young man's feelings may be more easily imagined than described.

They then descend to the Tokong and worship together ; the man then points to the door and the girl walks out, he points to the carriage, which she enters, followed by 2 young girls. They then go to the bridegroom's house. On leaving the residence of her parents, a great number of crackers are fired off for good luck. On reaching her future home, the husband comes to the carriage door, strikes the handle once with his fan and opens the door, he then points to the door of his house which the girl enters. They then worship his Tokong and the man points to an upper room in which a repast is spread. Two hard boiled eggs are placed on a plate in the centre of the table. The husband and wife seat themselves opposite each other, the latter takes a chop stick and points to one of the dishes, the former does the same, and in like manner all the food is pointed at, when the man takes one of the eggs and descends to the company, and the girl takes the other and follows. The husband then strips himself of his holiday suit and the marriage is completed. Three days afterwards they worship at their Tokong and then go to the house of the bride's parents for the purpose of worshipping their Tokong. Should the husband have parents, a chair is placed on each side of the Tokong for them, the bride gives a cup of tea to the husband's mother, and the husband hands a cup to the father, they then smoke tobacco and eat siri. The newly married couple now prostrate themselves before the Tokong and must remain there till their parents take hold of their hands and raise them up. The husband's mother makes the bride a present, the father does the same, and after this the whole family kow-tow to the Tokong. During the three days after marriage, all the friends of the couple send money to them. On the third day, after having worshipped at the house

of the wife's parents as above described, they give a feast at which all the people who have sent money are entitled to attend, but those who have not sent money cannot attend, unless invited in writing. Fuh-kien people feast at 7 P. M., Macao or Quangtung people at 4 P. M. After dinner the husband takes his friends to see his wife, they sit, eat siri, and drink tea with her; she then takes a cup of brandy or arrack in her hand, and one of his visitors put the following questions to her:—What is the arrack or brandy (as the case may be) made of? The name of her tribe, her father's name, his profession and any other questions he may think fit. To these questions suitable answers are dictated by the older females of the family. The questioning friend drinks his arrack. Another questions her, and so on till all have put a few questions to her on various subjects. She then tastes her cup and every man is in duty bound to empty his. Tea is now handed round and she is examined as to her domestic acquirements; after smoking and eating siri the company retire, giving the bride presents of gold ornaments, money or any other gift.

On the expiry of 12 days the girl's parents give an entertainment to which the newly married couple are invited. After regaling themselves the girl must return home, before the servants or others in the house light fires, as if smoke should appear from the roof before her return it is considered an unlucky omen. On the next day the parents dine with them. On returning home from her father's, two sugar canes are put on the roof of her carriage. At the end of a month she pays her parents a visit, which ends all the ceremonies.

Child-birth.

At the birth of the first male child the two candles first sent by the husband are lighted, and one month after the birth, the friends of the father meet together, drink arrack and chew siri. There are no religious ceremonies attending the birth of a child.

Domestic habits.

Their domestic habits are similar to ours. In the lower and middling classes, the females of the family cook and attend to the comforts of the men. The rich employ menials to perform those duties, but few in Pinang come under the last class. At daylight the servant, should there be one, or one of the family, lights a few joss-sticks, comes to the front of the house and bows to the sky.

This they assert is in honor of God. This is the only worship they render the great Creator, during the day. The servant then kowtows to the Tokong and places the lighted sticks in stands that are placed before the god for that purpose. A few are also stuck into niches at the outer door.

The Tokong is usually a picture, but some have an image representing the same character, which is placed on a shelf in the principal room. The house is then opened out and swept; the men go to their respective duties and the women prepare breakfast. In town they breakfast between 7 and 8, lunch at 11 or 12 and dine between 3 and 4; their meals do not vary much, the breakfast is as heavy as dinner. On a plantation the coolies breakfast at 6 A. M. and go to work, lunch at 11 and dine after work at 6 P. M. They are assembled by the sound of a cow's horn, which is also used to collect neighbours in cases of emergency, such as an attack of robbers, or to resist the police, as a warrant is seldom executed by a native policeman without the coolies attempting a rescue. In plantations situated near the jungle, horns are blown all night to keep off pigs. In all houses, tea is infused and kept ready all day, for a Chinese seldom drinks cold water. They bathe frequently and at all hours. It is said if new arrivals neglect doing so they invariably get ulcerated legs which sometimes prove incurable.

In their leisure hours the women amuse themselves by making purses, ornaments for bed hangings, children's caps and other fancy articles. The men amuse themselves with cards, dominoes, chess and draughts. These are somewhat similar to the games played by Europeans. At chess no figures are used except draughtsmen, with Chinese characters cut on them, denoting those figures. Women do not join in these amusements. Young men are fond of flying kites, made to represent birds, ships, animals, men and reptiles; a bow is usually attached to each, the strings of which vibrate on its passage through the air and produce a curious sound. When a great number are afloat their appearance is very enlivening.

Some perform on a rude guitar with three strings, which they accompany with their voices in a shrill falsetto, most disagreeable to a musical ear.

A small fife is sometimes heard, but it is not a favourite instrument. They have got the fiddle from their Portuguese neighbours and can play a great number of fandangoes. They have very good

ears for music and will, if thrown with European performers, catch their tunes very correctly. The tunes usually played are borrowed from the Theatre,—there is not much variety in them ; to me they appear alike.

They have no manly games. Boys join the Malays in their pastime of foot-ball and the Klings in a game resembling “ prisoners base.”

Worshipping the Dead.

Every family goes to the graves of its ancestors twice a year. Eatables of various kinds are placed at the foot of each grave, with chopsticks,—joss sticks are lighted and stuck in the ground, each person takes a few in both hands and kow-tows to the ground twice, sacred paper is burnt (square pieces of brown paper with a piece of silver or gold tinsel pasted in the centre), after burning the paper kow-towing is repeated; while doing so they say, “on such a day we your descendants or relatives come to worship you, protect and guard us,” or words to that effect. In the meantime the ghosts of the departed are supposed to enjoy themselves over the eatables,—when they are satisfied, their children return home and demolish the food left by the spirits.

Burial.

When a Chinese dies, the face only is washed and the body is dressed in a suit of clean clothes ; holy paper is burned and lighted candles placed at the feet, joss sticks are also lit and placed round the body ; a coffin is then bought and the body put in. In some families coffins are stored ready for use. Should the deceased have any children, they, or if he is unmarried, the nearest relatives, dress in sack-cloth, undo their queues and make themselves look as miserable as possible. A little before the coffin is removed to the burial-ground tables are spread with eatables, and a priest attends to perform the ceremony, which is thus conducted. The relatives acting as chief mourners, have joss sticks placed in their hands and they are made to kow-tow and prostrate themselves before the tables, while the priest stands at one side ringing a small bell, and chanting verses in a monotonous low tone. After keeping up the ringing and kow-towing for about half an hour, coolies lift the coffin and it is carried to the grave. This is no easy task, as the coffins are very heavy and it generally takes 30 to 40 men to lift them. The Chinese method of lifting heavy weights has been so minutely described by Mr Thomson, in his description of the building of

the Horsburgh Light-house, that it would be superfluous to attempt it again.

At the grave the worship is repeated and the coffin buried after which a substantial repast is partaken of and the party returns home. At the house of mourning 2 lanterns of bamboo, covered with white cloth on which Chinese characters are written, are hung at the door, for an uncertain period of from seven days to a month, after which they and other paper ornaments used at the funeral are burnt; a week after, the family goes to the grave, again in 100 days and then twice a year.

The male relatives of persons deceased, if Chin-chews, are not allowed to wear colored clothing for 12 months but must appear in white.

The women dress in black. After 100 days those that can afford it have the image of the deceased, and a small house and furniture, made with paper and tinsel, burnt at the door. Macao men do not practice the last ceremonies, but merely worship at the grave, as above described.

Festivals.

The festivals which the whole community celebrate are, first—the New Year; which commences on the 30th of the 12th Moon and concludes on the 16th of the First Moon. The principal days are the 30th and the 1st to the 5th, inclusive, and the 15th and 16th days, on which days public worship is conducted at the temple by the priests.

The temple is built on a piece of ground in Pitt Street, granted by Government to the Chinese for religious purposes; it was erected about 60 years ago and enlarged 30 years afterwards. The older part consists of a hall 40 feet square, having a paved terrace in front, on which stands two lions and an urn in which holy paper is burnt. The lions are painted green, red and black. Before the entrance to the hall a substantial railing is placed to keep out the mob on great days, when it is necessary for the priests alone to worship. Within the rail, on the right hand side, the names of the erectors, with the respective sums subscribed by each, are cut on a piece of granite which is let into the wall. The front of the building is decorated with carved work, gaudily painted. There are three doors leading into the hall; over the centre is a black board which bears the words "Kong Hok Keong" which

indicate that the building was erected by Macao and Chin-chew men conjointly. Over each side door 2 boys are represented holding up a China mace (a brass coin with a square hole cut out of the centre). There is nothing striking in the appearance of the entrance. Several Kongsee houses, especially one lately erected by the Sin Neng, have magnificent fronts. The tiles and rafters are exposed and the pillars supporting the roof come down very awkwardly on either side of the altar. In the centre, with its back to the wall, is a sort of house containing 6 images, the principal is called "Kwan yim hwut chia" the virgin of the lotus flower. The second figure is "Ma chow po," the patroness of the virgins, and the remaining four are attendants. The house or box in which they are placed may be closed on both sides so that a devout worshipper may enter and seclude himself from the gaze of the multitude. In the front of the house, a hole about 5 feet square is left open from which the gods command a view of the urn and China Street. It is supposed they are particularly gratified by a fine prospect, and the Chinese therefore endeavoured to buy up the ground in Beach Street facing the temple, so as to keep it free of buildings. A bargain could not be struck and the owner has since erected a fine dwelling house, which nearly shuts out Province Wellesley, but they console themselves by declaring the house unlucky and under the Gods' curse.

About 3 feet from the Tokong's house stands an altar on which is placed an oblong metal urn for joss-sticks. On each side of the altar there is a wooden stand with a circular top having spikes on which candles are struck, two pieces of bamboo about a foot long each, containing 100 slips of bamboo, bearing Chinese characters referring to the 60 drawers. Two sets of bamboo lots. About 4 feet from the altar stands a long table on which is placed a wooden vase for joss-sticks. Before the table is an oblong stand with spikes for candles. About a foot from the latter are two square red tables. To the right is suspended a large bell, and on the left a drum, which are sounded on some of the great feast days.

From the roof is suspended 12 lanterns of different shapes, gifts of wealthy shop-keepers. In one a light has been burning for several years.

On either side of the hall stands are placed, in which are fixed staves surrounded by representations of the sun, moon, an axe, a sword and a dragon.

Near the bell is a bureau with 60 drawers, each drawer contains a question on certain subjects corresponding to the bamboo slips that are placed on the altar.

The new hall is about 40 feet square and is separated from the old one by an open paved courtyard, also 40 feet square. It contains images of the arch guardian of heaven, the charitable commander-in-chief and the other gods worshipped on certain days, to be enumerated hereafter. The hall contains lanterns, altars, urns, candlesticks &c. as in the first. On the back of the first hall one of their deified philosophers is sketched, attended by 7 or 8 worshippers, and symbols similar to those used in the temple.

An open yard divides both temples from the Priests' quarters, where they have a sleeping room, cook-house and chapel with a lumber room.

In the new temple, under the charitable commander-in-chief, is the figure of a tiger which is propitiated by good feeds, to no effect it would appear, judging from the number of Chinese devoured in the Province by these animals.

At present there are 3 priests attached to the temple, who are natives of Fuhkien, and who are paid by subscriptions; they also receive a dollar for each funeral and Wayang.

Two Loo-choos are elected annually, who collect money for wayangs and festivals. When any man is desirous of undertaking any enterprise, the two virgins must be consulted, and if they do not return a favourable answer the project is abandoned, whatever it may be. The goddess's opinion is thus obtained;—the bamboo containing the slips is shaken till one of them drops out; the lots—which are two pieces cut from the roots of the bamboo in the shape of cashoo nuts, having a flat convex side,—are thrown in the air and if they fall with both convex or both flat sides uppermost, the slips are shaken and lots thrown over again till one convex and one flat side appear uppermost, this is sometimes done half a dozen times before the question is asked. When the image is favourable to the enquiry, the slip of bamboo is taken to the priest who looks at the characters and opens the drawer it refers to, from which a slip of colored paper containing the question is taken. The inquirer then takes the paper and puts it into a box which stands near the images,—the lots are again thrown up and the inquirer must be satisfied with the first answer.

The following festivals are celebrated at the time of the New

Year;—New Year's Eve 30th of the 12th moon,—New Year's day 1st of the 1st moon;—Emperor of Heaven's day, 9th of the 1st moon; Children's feast or kuda api, 15th of the 1st moon.

Early on the mornings of these days and on all feast days, the men flock to the temple with holy paper, candles and joss sticks, the former is burnt in the urn, outside the building, the two last before the images. In each house food is placed before the Tokong for three or four days and crackers let off from 3 or 4 in the morning till late at night. Large lanterns are hung before each door and lighted nightly.

Gambling is rife in all quarters. The scene at night in the Chinese part of the town is very exciting. Thousands of transparent lanterns of all colors, covered with figures and characters, line the sides of the streets. Men and women walk to and fro dressed in clean holy-day suits. Chinese and Malay music break on the ear as some merry party passes in hired carriages. Groups of Chinese are listening to fortune-tellers. Children decked out in fantastic clothing, are drawn about in carts. Here an excited group is listening attentively to a street reader, who is reciting the account of some great incident that occurred thousands of years ago. There an immense crowd is amused with the tricks of a lad dressed in a strange caterpillar-looking disguise, with a monstrous head having a faint resemblance to a tiger,—who jumps about and howls, accompanied by the most unearthly music; this is called the game of tigers. The figure is a great deal more like the Great Sea Serpent in Punch than that animal. On each side of the street, stalls are placed illuminated with colored lanterns, behind which Fuki sits retailing sweets of all descriptions and attracting the passer by, by knocking two pieces of wood together. And from the pathway merry parties may be seen in the shops, enjoying themselves at cards, music, songs and other amusements.

New Year's Day is the only holiday in our acceptation of the term, as on all other festivals work is carried on. The next general festival takes place in the 3rd Moon when the dead are worshipped. The manner in which this is done has been described under the head of domestic habits. On the 5th of the 5th Moon a deified magistrate is worshipped. In former years some ceremonies used to take place in boats but they are now entirely discontinued.

From the 1st to the 30th day of the 7th Moon, evil spirits are conciliated. During this month they are supposed to wander

about and if not propitiated plague the offenders with divers pains and aches and more serious mishaps.

Long tables are spread with all the delicacies of the season and placed near the temple, and in other convenient spots, exposed to the open air or under sheds. These feasts cost a great deal of money. The tables are ornamented with artificial flowers, fish and fruits, and are well worth seeing.

The following feasts are celebrated exclusively at the temple :—

The Virgin of Lotus flower, on the 19th of the 2nd moon.

The Arch-guardian of Heaven, on the 3rd of the 3rd moon.

Day of the first Priest, 8th of the 4th moon.

Charitable Commander-in-Chief, 13th of the 3rd moon.

Priest who died in celibacy, 19th of the 6th moon.

On the 15th of the 8th moon a general holiday is kept.

On the 19th of the 9th moon, a priest who died in celibacy is worshipped.

The three following days are celebrated at the temple, when teachers, learned men and philosophers assist :—

The inventor of letters' day, 3rd of the 3rd moon.

Confucius' day, on the 27th of the 8th moon.

Confucius' birth-day, on the 4th of the 11th moon.

The inventor of carpentry is worshipped by the carpenters only on the 13th of the 6th moon. His image is carried in procession by the fraternity from the house of the ex-Loo-choo to the Temple, and thence to the new chief's house, where it remains for 12 months. For several evenings the public are treated with a wayang, which is paid for by the carpenters. A company of superior actors was here at the last anniversary and they were hired to play for 3 nights at 120 dollars a-night. On mentioning the Chinese game of Tigers, I am reminded of the manner in which the "Gamin" or Jawi Pukan of Pinang, (a mixed breed between a Kling or Bengalee and the Malay) personates that animal. In the Mohorum feast several of these men go about with their bodies painted like tigers, a tail stuck on behind, and a chain round the waist, which is held by others who are supposed to be their keepers. They are generally muscular, clean made fellows and imitate the movements of a wild beast admirably. They carry the resemblance so far and work themselves up to such a pitch of excitement, that if a live kid is thrown to them they will

seize it, tear the poor creature to pieces and suck the blood. There are families that bear the soubriquet of tigers. The child is taught to personate the animal by the father as soon as the former is strong enough to bear the fatigue. On going round the town and country they collect a great deal of money and are allowed to seize any articles of food that may be exposed for sale on the road side. I have seen a tiger in passing down a very short street, collect a great number of cocoanuts, sugar canes, cakes and sweetmeats. On the last Mohorum day a tiger was displaying his agility to the wondering crowd near the Datu Kramat, had abstracted several articles from various stalls, and was about to take a cocoanut from the stand of a young Malay, evidently a raw hand from the Province, who did not or would not see the joke; master tiger put his paw on the nut and was about to roll it away when he was surprised by an ominous shake of the head,—that and the sight of a thick stick the Malay carried under his arm, made the royal animal hesitate, he essayed several times, but still the same portentous shake of the head appalled him. Not a word was said by the Malay, but there was no mistaking his eye, it seemed to say “try it my good fellow, and you shall feel the weight of this stick.” The tiger at length, not anxious to measure his strength with the sturdy chap before him, very wisely sneaked off to the next stall, where a better tempered fellow presided, followed by shouts of laughter from the crowd.

Kongsees and Hoés.

The Chinese of Pinang may be divided into 2 classes, the Macao and Chinchew. The former includes Kehs and Ahyas. The latter are natives of Fuhkien and the north western provinces. Keh-langs and Ahyas come from the province of Quangtung on the borders of Fuhkien. Nearly all the former belong to the city of Kiaying and its environs. The latter are from Chan-chau-fu and the neighbouring towns.

Macao men are divided into 7 great Kongsees or Friendly Societies or clubs, viz:—Sin Neng, Hiong Shan, Chen Sang, Ku Yin Chew, Chong-far, Win Tai Kwan and seven lesser Kongsees—Nam Hoi, Sen Tak, Poon Ngwi, San Wi, San Oon, Hok San, Howi Peng.

These clubs must be distinguished from the Hoés or Triad Societies, from which they materially differ; they are however

confounded by Europeans. Kongsees are formed by men of the same town, village or district and no other natives are admitted. The above titles are the names of certain localities in the province of Quangtung. The seven first clubs have houses, with rooms for their sick and indigent, where they are lodged and fed, and on dying are buried at the expense of the Kongsee. They have no oath of secrecy or signs to distinguish each other. Each member subscribes according to his means. A certain number are annually elected trustees, who collect subscriptions and the rents of houses that may be bequeathed to the club. One man is elected chief for the year, into whose hands the trustees pay the funds collected, he is called the Loo-choo. On the day of election the members of the Kongsee meet at the Kongsee house, and each man's name is written on a separate piece of paper, which is rolled up tightly and laid in a box. A pair of lots (described before) are thrown into the air before the Tokong, if they fall with a flat and convex side uppermost, three times successively, one of the papers is unrolled and the man whose name appears becomes the Loo-choo for the ensuing year. In the same manner the Trustees or Towkays are chosen. On the election closing, the image of the guardian deity of the particular Kongsee, is removed from the ex-Loo-choo's to the new chief's house, where it remains for a twelvemonth. The removal is attended with a grand procession, all the members march in rich dresses, preceded by the image, which is carried on a sort of chair, and coolies carrying banners and symbols. In the evening the public is gratified with a wayang, and if it happens to be a rich club it is repeated for several nights. The only religious ceremony these clubs indulge in, is the worshipping of the dead once a year; the ceremony is similar to that performed by private individuals. To a foreigner the whole affair seems to be got up for the purpose of feasting. The night preceding the day on which they celebrate the above festival, pigs, fowls and ducks are slaughtered and cooked, and a party of musicians perform for several hours at the door of the Kongsee house. Early in the morning the food, with arrack and other drinks, is sent to the burial ground, and the members follow; after the ceremony is concluded they eat, drink and gamble. On some occasions when several Kongsees meet in the country fights ensue, and severe blows are given. On the 3rd moon of this year the Sin

Neng Kongsee and Hye San Hoé quarrelled at Poh, several men were dangerously wounded, much property destroyed and the two clubs involved themselves in a law suit which has not yet concluded, 6 months after the fight. A great deal of ill nature has been displayed on both sides, a Hye San man was plundered of a very large sum of money, and several grown trees of a Sin Neng man were destroyed.

The Chin-chew men do not divide themselves thus, but each "Seh" or tribe has a club of its own, conducted exactly as the Macao clubs. The only difference is that Chin-chew will admit Macao men of the same tribe; while the latter are more exclusive and will not admit a stranger. There are a great many Chin-chew Kongsees;—the principal are:—Long Say Tong, established by the Seh Lee; Leong San Tong by the Seh Khoo; Kew Leong Tong by the Seh Tan; Poe Soo Tong by the Seh Cheah.

Country born Chinese have a club called Sip Gee Seeah; they elect 12 Towkays or trustees.

In addition to these Kongsees there are five Hoés or Triad Societies, viz:—The Gee Hin, Ho Seng, Hye San, Chinchin (or ring) To-pe-Kong. The two first approach nearer to the famous Triad Society of China than the last three. The Gee Hin corresponds with the Tien Teh Hoé, or heaven and earth fraternity. The term Tien Teh is also used as a name for the deity.

The three last have been formed in Pinang and differ but slightly from the others. The whole five may be considered one, having different names and separate rules for internal management, and although some of the signs differ, they are known to all the Hoés.

The separation was evidently caused for convenience sake, by each tribe, if we may judge from the apparent exclusiveness of each.

The Gee Hin is principally composed of Macao men though professing universality.

Ho Seng admits all classes, and even Malays, Portuguese, Klings and Jawi Pukans belong to it.

Hye San is composed of Keh Langs.

To-pe-kong, nearly all Babas and Chin-chews.

Chinchin composed of Chin-chews and all classes.

The Gee Hin is said to number about 15,000 members in

Pinang and Province Wellesley; but this amount is not to be depended on, as the number given by several members of the Hoé varies from one to twenty thousand. Ho Seng from 3 to 5,000; Chinchin 2 to 3,000; To-pe-kong 3 to 4,000; Hye San 1 to 2,000. Females are not admitted.

A very intelligent Malay Haji, who was educated at the Protestant Free School, and was well known at one time as a prominent member of several Hoés, gave me the following particulars regarding his initiation and the object and construction of the Society he belonged to. On his telling me his story, I asked if he was not afraid to divulge the secrets, after taking an oath of fidelity? He replied, no—that being a Mahomedan, he did not consider the Chinese oath binding—that he was not sworn on the Koran and therefore did not care; that for three or four years past he had deserted the fraternity because his chief priest considered it to be contrary to their faith to belong to it, and he was then expiating his former wickedness by frequently attending the Musjid and implicitly obeying the injunctions of the Koran. I cannot vouch for the truth of his statement, but give it verbatim. The Punghulu's statement, which follows, corroborates the story in some points, and alludes to the Haji as being the principal initiator on the night of his admittance:—

Any person wishing to enter a Hoé signifies his intentions to one of the members, who tells the chie for Thoo Ah Koo who enters his name in a book. When a sufficient number are desirous of entering, a night for the initiation is fixed. When the night arrives, the members of the Hoé assemble in the principal room of the house and the candidates are put into an adjoining apartment; each man pays 25 cents, and his name is entered in the books of the Hoé. At the door leading into the hall stand two men, armed with swords and dressed in rich silk clothes, ornamented with divers figures of dragons, birds &c; half a dozen lighted joss sticks are given to each candidate. They now advance in couples to the door, their right arms bared, and, if Chinese, their queues opened out, they are not allowed to stand upright but must advance in a stooping posture. On arriving at the door the following questions are put by the guards to each person:

Q. What do you desire by entering the Hoé?

A. I wish to become a brother of yours.

Q. Who told you to come?

A. I came of my own accord, no one told me to come.

Q. What do you hold those joss sticks for?

A. I wish to pray and swear before the Hoé, that I will obey all its orders.

The candidates are then allowed to enter the hall in which is found a table before the Tokong spread with eatables. A priest stands to the left (or one personating a priest.) The Thoo Ah Koo stands on the right.

The second grade, called Jee-ko, sit in chairs on the right. The third grade or Sam-ko on the left. The fourth grade or ordinary members, called brothers, stand on either side, and in front.

The candidates are then brought to the head of the table and are made to worship; this is done by stooping down three or four times and raising both hands with the joss sticks over the head. Each candidate says that he will strictly obey all orders of the Hoé and will not reveal to any one what he may see or hear. The priest then takes up a large book and says, "you come here unsolicited and wish to become a brother, and you have sworn before the God, that you will strictly obey all orders and reveal nothing that you may see or hear this night?" All the candidates reply in the affirmative. The priest then says, "I will now read the rules of this Hoé".

"You will not reveal the proceedings of our meetings to any but a brother.

"You must not cheat a brother or steal from him, you must not seduce the wife, daughter or any female relative of a brother.

"You must not injure his character or disturb his peace of mind in any way.

"If you break any of these rules, you must come before the Hoé to be punished and on no account must you go to the police or to the Supreme Court. The Hoé have the power of flogging you or imposing any other punishment they please.

"If you commit any serious crime like murder, robbery &c, we will have nothing to do with you. You will be dismissed from the Hoé, and no brother will receive you into his house.

"If a brother commits the most serious crime, you must not inform against him, but, at the same time, you must not interfere with or obstruct the officers of justice in arresting him.

"If a guilty brother is caught by the police, you must not assist in getting him off. But should the brother be innocent, you must make every exertion to get him off.

"If you see a brother make a signal, it is your duty to answer it; if in need of assistance you must grant it. (Many other rules exist but the Haji had forgotten them.)

"The following signs that will be shown you, must not be revealed—

"If about to be assaulted in the street, roll up the right sleeve or the right leg of the trousers, or hold the right arm over the head with the fingers spread out.

"You will wrap your tail round the head and tuck the end in over the right ear, or at the back, leaving the tassel hanging down.

"If you are making a bargain with a man and wish to find out if he is a brother, push the article you are bargaining about with the back of your hand if you do not agree to the price, if you do, seize it with three fingers of the right hand.

"When you salute the Thoo-ah-koo, you must touch his thumb with yours. With a Jee-ko and Sam-ko touch the first finger of his hand with your thumb.

"On shaking hands with a brother, or fourth grade, place your thumb on the back of his hand and your first finger along the palm of his.

"On entering a house, if you wish to be known, put your right foot in first over the thresh-hold and look up."

A handkerchief placed round the neck, and tied in the front with two knots, with the ends left hanging down, denotes a member of the Gee Hin. Junks on meeting at sea have a peculiar way of placing their sails and flags, so as to show what Hoé they belong to.

After enumerating all the signs and signals, which are too numerous for any person to remember, every member pricks the middle finger of the right hand and drops a little blood into a bowl of arrack and each candidate is obliged to do the same. After this every member present drinks out of the bowl and the candidates are saluted as brethren.

Each newly initiated brother now pays a dollar and ten cents, gets a seal or chop on silk or paper, and he is then entitled to all the privileges of the fraternity.

The Gee Hin and Ho Seng are nearly alike in their signs.

To show yourself a member of the To-pe-kong, draw the right hand across the mouth, and if in want of aid in a street row, hold the right arm up with the hand closed and point the thumb upwards. On refusing any thing push it away with the open hand.

Several months after hearing the Haji's story, I was on a visit to one of the country Police Thannahs, and recollecting a report that all the Mahomedan male inhabitants of the village had entered the Ho Seng Hoé, I took the opportunity of questioning the Punghulu, a highly respectable man, the son of a Haji named Haji Bruni, he having been a native of Borneo. This man left some property and a large family, who are very influential. The Punghulu without any hesitation admitted it was quite true that about two or three years ago all the Mahomedan male inhabitants did join the Ho Seng, he being one of the number.

As soon as Abdul Gunny, the priest, heard of it, he repaired to the spot and assembled them all. He declared that they had all become Kafirs by joining Heathens, and if they did not recant, he would close the Musjid, take the presiding priest away from the village, and excommunicate them all. On this they immediately renounced the Hoé and by the usual ceremonies were re-admitted into Islamism.

The following is the Punghulu's account of his initiation, but he said it was so long ago and not having been to a Hoé since, he could not furnish a detailed account of the transaction, or the oath, signs, &c. "With 200 Malays or more I was persuaded to join the Ho Seng Hoé. On the night of our initiation we assembled in the plantation of the chief of that Hoé in the village. An attap shed was lighted up, and a table spread with food was placed before a picture. Two men with naked swords stood at the entrance of the shed and held them over-head in the shape of a triangle, which each candidate had to pass under; we had then to swear that we would not reveal any of the secrets or signs that would be communicated to us. All I can now recollect is that we were to call each other brother.

"We were not to injure the wife, daughter or any female relation or friend of a brother.

"If a false charge was brought against a brother we were to make every exertion to get him free. But if a brother was

arrested on a true charge, the law was to take its course.

"If in a row and in want of assistance raise the right arm or roll up the right sleeve or one leg of the trowsers.

"On setting tea before a man, place three cups in a row, if he takes the middle cup he is a member of the Ho-Seng.

"The ceremony of initiation was conducted in the Chinese language, which the Panghulu did not understand, but Haji conducted the business and interpreted the orders and signs." The Haji mentioned by the Punghulu was my informant as stated above.

During the day I paid the chief of the Ho Seng a visit and alluded to his having admitted the Malays into his Hoé and their subsequent recantation. He denied their having been admitted into the Hoé, but said that they had only formed a club to assist each other against the adjacent villages. This of course was to put the Punghulu (who was present) off the scent. If it had been merely a local club it is not likely that the Haji would have gone eleven miles from town to assist in the ceremony.

The Hoé have two great days in the year, viz:—in the 3rd moon, when they worship the dead, and in the 7th moon, when they worship the evil spirits. In the latter they assemble in town and have a great feast. I have visited these assemblies and there were at least 3,000 members of the Gee Hin in the Kongssee house and the adjacent street on one occasion. There are no stated meetings, but whenever an offender is to be tried, notice is sent round and the members of the Hoé assemble. If the culprit is pronounced guilty, he is flogged, fined, expelled or punished in any way the elders judge fit.

On one occasion while a Constable was on his rounds, he was alarmed on passing the Gee Hin Kongssee-house, by cries issuing from the building, at the same time a man rushed out followed by others. The police finding the door open went in and seized the elders, as they sat in solemn conclave and took them to the police office, the pursued and pursuers being also taken up; the former had his hand cut open and severe bruises appeared about his person. He declared that the elders had nothing to do with the assault, but that the pursuers were bad men and against the order of the head man had assaulted him, he also admitted having been before the Hoé for some misdemeanour. There was no doubt the Hoé had ordered him to be flogged and that he managed to force

his way past the door-keeper. Evidence could not be procured and the chief and officers were released.

The most influential man in the Gee Hin, who was arrested on the above occasion, is a Chinese, born in Bengal, and a watch-maker by trade. He has been on the island for 50 or 60 years and is remarkable for his benevolence. He has a small hospital for lepers and poor creatures afflicted with any other diseases, in which there are generally 15 or 20 patients at a time. He gives a great deal of money away in charity and buries all paupers who have not belonged to any Hoé or Kongsee, or have not paid up their subscriptions to these institutions, for which purpose he keeps a number of rough coffins ready at hand. He has a wonderful influence over his people. At one of their feasts I walked to the Hoé about 10 P. M. and found the street in front of the house crowded with initiated Chinese. Fearing a disturbance, I sent for this man, who is named Appoo, and told him it would be better to send the men in doors and keep them quiet. He immediately gave an order for them to retire and shut the gates, and in 5 minutes the street was deserted, and where a minute or two before all was noise and confusion the greatest silence prevailed. He is much respected by all classes. He may be recognized any day by his black beaver hat, being the only Chinaman that wears one.

The chiefs of all the Hoés are well known by reputation. For the last 3 or 4 years they have been on very amicable terms, but before that several desperate street rows took place and some lives were lost.

The origin of these fraternities is thus explained by members of the Pinang Hoés. Some hundreds of years ago the Emperor of China was so beset by his enemies that he despaired of his life and kingdom; hearing that there were 300 priests who were famous for their valour and skill in magic, he appealed to them for assistance, which was readily granted. The priests alone defeated all the armies that opposed the Emperor and restored him to his former greatness. Finding himself free of his enemies, the perfidious monarch, instead of being grateful to his deliverers, conceived the greatest mistrust of them. Before an assembly of his ministers he stated that if the priests were so powerful as to defeat such immense armies, they might turn their arms against him; therefore, the best plan would be to kill them by stratagem. He managed to des-

troy all but three, who settled in different parts of the country—one in Quangtung, the second in Fuhkien and the last to the North. They collected a few friends around them and established these clubs for their mutual protection and with the object of hurling from the throne the Emperor and his dynasty, in retaliation for his ungrateful treatment. Before the three priests separated, they agreed upon the rules and signs of the intended clubs. This may account for the whole of them, though widely separated, having the same organisation. In China the fraternity has always been dreaded, and if a man is suspected of being a member, he is severely punished.

It is believed in Pinang that the rebels in China are members of the Hoé.

Although these Hoés profess not to assist a guilty man, yet it is a well known fact that they do so. When a brother commits a crime, he has nothing to do but exonerate himself before the Hoé and it is an easy matter for the members to believe him innocent. Both Hoés and Kongsees do some good in adjusting petty quarrels and punishing slight offences, but in more serious crimes they carry out the same principle and force men to compromise them. A most flagrant case occurred at the Criminal Sessions in the month of June last, which will serve to exemplify the manner in which the ends of justice are defeated. In the 3rd moon the members of a Kongsee were worshipping the dead at the Macao burial ground. A mendicant having displeased them was beaten and died from the effects of the blows. Some fellow beggars of the deceased complained to the police, the perpetrators of the deed were arrested, and a Coroner's Jury returned a verdict of wilful murder against them. On the opening of the Sessions not a witness was to be found. These men had lived for years at the burial ground and subsisted on the generosity of the frequenters, they were too poor to have left the island without assistance, it therefore may be inferred that the Kongsee bought them off and paid their passages to China. Such cases are not uncommon, for at every Sessions cases are thrown out from want of evidence. It is quite apparent that the fraternity is the root of all evil here. Were they suppressed, the Chinese would be brought under the influence of our laws and made to respect them, but at present the Hoé is looked up to as the only legitimate Court of Justice, and Magistrates, Judges, Courts

of Judicature &c, are viewed as merely engines of tyranny.

Opium.

The most pernicious habit indulged in by Chinese is the use of opium, or a preparation of that drug called Chandoo. The following is the method of preparing it for smoking. Two balls of opium are cut open and their contents put into an iron pan which is placed on a slow fire; a man keeps stirring it with a piece of wood till the whole is melted, it is then divided and put into two pans, these are inverted over the fire and baked till all moisture is absorbed. The opium can then be peeled off in slices. The hide which was stripped off the balls is boiled in water till all the opium is detached from it. The water is then strained and poured over the slices of opium which are placed in pans. Baskets are now prepared by lining their bottoms with several layers of common China paper, and they are filled with the slices of opium and placed over pans. Boiling water is now very slowly poured into the baskets over the opium. The water dissolves the opium which filters through the paper into the pans. When all the opium is dissolved the pans are placed over good fires and the opium water boiled till it thickens to a proper consistency. During the boiling a man stands by with a bunch of feathers, with which he wets and moistens the pans above the surface of the liquid to keep it from burning, and also brushes off all dirt which may float to the top. When the preparation can be drawn out of the pan 2 or 3 feet, without breaking, it has boiled sufficiently. The pans are taken off the fire, placed on the ground and the Chandoo cooled with fans. When quite cool it is poured into tin boxes ready for sale. It is always adulterated by pouring dissolved sugar candy into the opium water before it is boiled. In the Opium Farm one fourth of a catty of sugar is added to two balls of opium,—the manufacturers of illicit Chandoo mix half a catty of sugar with 2 balls of opium.

The farmer sells Chandoo for the Pinang market at 75 cents a tyle, a tyle being one sixteenth of a catty. Chandoo intended for the native territories is sold for 65 cents a tyle.

In all Chandoo shops a piece of cloth is kept near the retailer, on which he wipes his fingers, knives, or any article soiled with Chandoo; this cloth is used till well saturated and then sold for a few cents. The rags are steeped in water, which is strained and

boiled till Chandoo is obtained, into which young sugar cane leaves, chopped up very small, are thrown and well mixed, the result is rolled into pills, sold and eaten. This preparation is called Muddeth. Opium is also eaten by a great number.

Chandoo is a deadly poison, of which a quarter of a dollar's weight will kill a man in one hour. The best restorative for a man that has poisoned himself with Chandoo, is oil, generally cocoanut, which will cause him to vomit immediately. Should the Chandoo have been dissolved in arrack or water, the oil will not have the desired effect. He must be sickened by introducing a feather or stick into his gullet.

Chandoo is thus used; the smoker takes a pipe, on the bowl of which a convex piece of tin is fitted, having a very small hole in the centre; the smallest quantity of Chandoo, about the fifteenth part of a tyle, is placed on the hole, the smoker lies down and applies the Chandoo to the flame of a small lamp, he imbibes the vapour and in a few seconds the Chandoo is burnt out, the refuse falling into the bowl. After a pipe has been used for some time the tin lid is taken off and the refuse mentioned above is scooped out; it is called Tye Chandoo, and is retailed by the smoking shop keepers; it sells at from 25 to 40 cents a tyle and is much used by the poorer classes.

The Opium Farmer retains five retailers or clerks whose duty it is to keep the accounts and retail the drug, six Tukangs or labourers, one cook, two water-carriers and 8 Revenue peons.

Though an immense quantity of illicit Chandoo is smuggled into the island from the Malay territory and Province Wellesley, the farmer must derive a very large profit to be able to pay Government 2,680 dollars per mensem or 32,160 annually. An inveterate smoker will demolish half a tyle or more at a time, he then falls back and sleeps off the effects; it is remarkable that an opium smoker cannot sleep long; on awaking he will return to his pipe, till sleep closes his eyelids again. The dreams or fancies in these fitful naps are very delightful. The immoderate use of this vile drug for a few years completely destroys all a man's energies and renders him entirely unfit for active employment. The opium smoker may readily be known by his emaciated, woe-begone appearance.

Gambling.

The Chinese and all the natives of the Straits seem to have an

inherent love for gambling. Men, women and children indulge in it to a frightful extent, in one shape or another. To many it is a matter of business; they form a company and establish a gambling house, participating in all the gains but never appearing in it as the managers or players. A dwelling house is rented and thus fitted up for gambling purposes; the nominal keeper establishes a shop in the front and builds a passage to one side, having a door on a line with the front of the shop, the passage running the whole length of the shop and then right across the back of it. In some houses the shop communicates by a door at the back with the passage; at the end of this passage a door is placed which admits you into a second passage, running in an opposite direction to the first, at the end of which is a door by which a third passage is entered, running the length of the house, at the end of which is a fourth door leading to the gambling room; these doors are secured by several wooden bolts, and at each a watchman is placed. It has sometimes happened that the keeper of the last door, on the alarm being given that the police was at hand, has secured his door and enclosed the remaining door-keepers in the passage, who have been found there after the police had effected an entry.

The principal game is called poh, it is played with a die shaped like the European, which is placed in a brass box and kept from moving by a smaller box which fits into the first. At the bottom of the inner box is an iron pin, the end of which rests on the die and keeps it from turning. The keeper of the gambling house holds the poh box—puts it into a red bag, places the die in it and slides the inner box on it. A mat marked with a Saint Andrew's Cross is placed on the ground or on a low table, in the centre of which he twirls the poh box,—when it loses its motion the die is uncovered. The 6 sides of the die are equally divided and painted red and white, the players stake at the 2 legs of the cross, facing the poh holder and between them,—when the die is uncovered the players opposite the red side are winners. Each winner pays a per centage to the Bank, which is divided by the shareholders. The amount of the stakes and the rules that guide the players vary according to their means. The bank is generally kept in an upper room, to be clear of bad characters. A scuffle is sometimes brought about and as much money as the keeper has by him is stolen. To save the bulk of the money, therefore, it is kept

above and the keeper is supplied with money or hands it to the banker, as the case may be, through a trap door. A trap door is also fixed above the stairs and well secured to prevent disappointed gamblers from rushing to the bank.

Poh is said to be a very fair game, but poh boxes are made with false bottoms which can be opened so as to admit the die, where it is turned by a spring at the will of the holder.

Poh is the only game at which large sums are staked. On some nights a great deal of money is lost and won. Cards are played at some houses but the stakes are low, women are much given to the latter. Boys play at a game called Chumpleh which is very similar to the English heads or tails.

Much more could be written on the character of the Chinese, but the brevity of these notes will not admit of the addition ; at some future period the author hopes to lay before the public fuller accounts of the Chinese and other settlers in Pinang.

ETHNOLOGY OF THE INDO-PACIFIC ISLANDS.*

By J. R. LOGAN:

LANGUAGE.

PART II.

THE RACES AND LANGUAGES OF S. E. ASIA CONSIDERED IN
RELATION TO THOSE OF THE INDO-PACIFIC ISLANDS.CHAPTER V. (*Continued*).

ENQUIRIES INTO THE ETHNIC HISTORY AND RELATIONS OF THE DRAVIRIAN FORMATION,—EMBRACING NOTICES OF THE FINO-JAPANESE, CAUCASIAN, INDO-EUROPEAN, SEMITICO-AFRICAN, EUSKARIAN AND AMERICAN LANGUAGES.

Sec. 4. THE CAUCASIAN LANGUAGES.†

THE Caucasian formation is a most important link in the complex affinities that connect the Dravirian, Scythic, N. E. Asian, American, Iranian, Semitic, African and Euskarian languages. In their phonetic and ideologic systems the Caucasian tongues appear to belong mainly to the formation in which the Semitic and earlier African originated, and which was also the source of one of the principal elements of the non-Iranian basis of the Celtic and of the non-Ugrian or proto-Ugrian basis of the Ibero-American formation. Its influence is also deeply impressed on the Iranian. The distinctive peculiarity of this formation was its agglutinative and elliptic phonology. In the Ibero-American and most of the African languages this basis has been overlaid by the same full, harmonic and vocalic phonology which is so conspicuous in

* Continued from page 324, Vol. VII:

† I regret that the only data accessible to me for this family are *Brosset's Elements de la langue Georgienne*, the very fragmentary notices in the Mithridates, some extracts from Rosen's papers in Dr Latham's *Varieties of Man* and Klaproth's *Vocabularies*. As I include the Georgian tongues, the more appropriate designation would perhaps be Caucaso-Georgian or Euxo-Caspian, but for a group so archaic and with affinities so numerous and varied a single word is preferable, because it must often enter into combinations indicating ethnic alliances and early lines of migration or linguistic diffusion, and as the Georgians are generally included in the term Caucasian it appears to be the best that can be selected. It has also the advantage of denoting the standing geographical cause of the preservation of a formation so ancient in the vicinity of great and successively dominant nations of Semitic, Scythic and Iranian race.

The want of materials would alone prevent my attempting to determine to what extent the Semitic, the Scythic and the Iranian affinities of these languages were secondary or acquired from the influence of these nations. But in this as in other

the Fino-Japanese and Dravirian formations. The formations of the Old World that preserve the more ancient phonetic basis most fully and purely are the Caucasian; the Semitic, Berber and Nubian; the Euskarian; and the Celtic branch of the Iranian. Some of the N. E. Asiatic and American languages also largely retain it. And it has nowhere left a stronger mark of its presence than in the basis of Iranian. The remarkably elliptic, agglutinative, inversive and incorporative phonology of the mother-formation led to words being frequently reduced in composition to single sounds,—vowels or consonants. This, with the very pleonastic character of the early ideologies and the changes of sounds attending composition, produced the various reflections of definitives, pronouns, time particles &c. (with their variations for number, genus &c.) in other words, and of other words in them, out of which have grown what are termed flexions, e. g. the Semitic “conjugations” and internal flexions, the African and American flexions, the Teutonic strong conjugations, the Celtic initial mutations, the common Iranian flexions, the Ugro-Japanese harmonising vowels &c. The acquired habit of expressing modifications of meaning by changes in a single sound probably led to its extension to mere phonetic changes. The Caucasian, Semitic and African languages make a considerable use of purely phonetic and euphonic flexions to individualise composite words formed from similar elements, which would otherwise too much resemble each other and the same phenomenon may be observed in American and Indo-European. In some other cases,

cases my purpose only requires me to indicate the more fundamental characters of the formation. It is clearly more archaic than the adjacent Indo-European, and the Caucasian traits which Armenian possesses in phonology and glossary and I may presume (for I have no grammar to refer to) in ideology also are attributable to the presence of the formation in Asia Minor before the Indo-European development—itsself partly Caucasian in its basis—Arianised the northern part of that province. Prior to the western dispersion of Iranian it appears probable that the southern borders of the Caucasian met the northern ones of the Semitic family; and that, in still more ancient times, before Syro-Arabic assumed its actual form and assimilated the other kindred formations of S. W. Asia, Caucasian was in contact with languages of the great Semitico-African alliance that had diverged less from its own Scythico-African type. On the north, it may be believed, Caucasian was always exposed to the influence of successive forms of predominant proto-Scythic and Scythic, from those of a very archaic and crude Egypto-Tibetan character—the basis at once of Africo-Semitic, Scythic and Iranian—to the rich, harmonic and pleonastic Ibero-American formations, and afterwards to the impaired Ugro-Koriak and still more simplified Tatar. If the most northern Caucasian languages are now more Scythic in character than the most southern, while the latter have peculiar Iranian and Semitico-African affinities, this is consistent with the geography of the Euxo-Caspian province and with all we know or are justified in surmising respecting its ethnic history.

as in the irregular euphonic plurals of Arabic and certain African languages, the flexion appears to have originated in phonetic analogy, if it may be so termed. The habit of using phonetic variations of the same root to indicate ideas having some real or fanciful connection with the primary one, must not be entirely attributed to the influence of an elliptic and agglutinative phonology. This gave it new directions, but it necessarily existed from the beginning of human speech. Its operation is deeply impressed on the monosyllabic formation, and on the monosyllabic basis of every language.

All the phonetic, and the consequential glossarial and ideologic peculiarities of those languages which have an agglutinative basis, are ultimately referable to rhythmical causes. A certain musical law prevails in every formation and language, and moulds its phonology. Human speech, in all its varieties, has a rhythmical core. Agglutinative formations more than others subordinate words and their elements to musical combinations of sound. Agglutination, with its attendant transposition, inversion, incorporation, ellipsis and commutation, is the offspring of music and the parent of flexion.

The Caucasian phonology is fundamentally harsh and consonantal, but with vocalic and harmonic tendencies, which are less strong in the Circassian than in the other languages. The range of consonantal finals is great, and includes sonants. Consonants are abruptly joined both as initials and finals. The structural basis is monosyllabic, and monosyllabic terms still abound in the vocabularies. But a large proportion of the words have been rendered dissyllabic, chiefly by inseparable definitives, which are generally postfixual. In the more consonantal and elliptic languages, such as Circassian, the monosyllabic form is often preserved even when a definitive is combined with a root, or two roots or particles with each other. Similar instances occur in all the Caucasian vocabularies. The most important character of the phonology is its union of a strongly agglutinative, elliptic, commutative and inversive habit, with a tendency to avoid long compounds. Such a phonology is highly favorable to the development of inflexion, and accordingly the Caucasian languages abound in rudimental flexions. Pronouns, and servile particles and words of various kinds, are intimately agglutinated with the principal

roots, in contracted and modified forms which have the closest resemblance to the flexional initials, medials and terminals of those languages which—from the agglutinated particles having ceased to exist or to be recognised in their separate and full forms—have become purely or concretely flexional. The Caucasian languages themselves contain many pure flexions, identical in character and form—and in some instances even glossarially identical—with the Indo-European flexions of case, person, tense, and mood. But in other cases the agglutinated particles can be referred to separate forms which are still current. The agglutinated personal particles are, in some of the languages, merely reflections of the full separate forms of the pronouns. Even where this is not the case, there are instances in which the flexion can be traced, with little difficulty, to the full form preserved in the same, or in an adjacent language. This is also true, to a considerable extent, of the Indo-European tongues, although the wide space over which they are scattered, renders the mutual dialectic illustration more striking than in the case of a compact group of archaically distinct languages of the same formation, like the Caucasian. The variations in the degree and mode of flexion of the same forms, that are presented by the different Caucasian languages, reveal the history of flexional development in a much clearer manner than the analogous phenomena of the Indo-European formation. These variations enable us to detect the archaic crude basis common to all the languages, and to recognise in the various agglutinations,—whether resulting in the production of complete flexions, or falling short of it,—the operation of one cause, acting in each language according to the structural habits and tendencies which it possessed in its crude state. Some of the languages have evidently been more deeply modified than others by the influence of foreign formations; and as the blending of two agglutinative formations necessarily leads to the production of pure flexions, from the breaking up of the original homogeneity in the systems of pronouns and other particles and the consequent confusion and obscurity, it may be concluded that those members of the Caucaso-Georgian group which most abound in flexions no longer traceable to extant mother words, have, at some periods of their history, been in intimate contact with external formations, Mediterranean (Euskarro-African, Euskarro-American), Scythic, Semitic and Iranian,—a conclusion that is borne out by glossarial facts.

The formation is found in its crudest condition, but with the distinctive phonetic and ideologic characters developed, in some of the Circassian tongues. Ossetic or Iron and Georgian are much more elaborate and flexional. In all the conditions in which the formation is now found, it has strong affinities with external formations. The cruder remind us of Nubian, Scythic and even of Tibetan; while the more flexional send us for analogous traits not only to the adjacent Iranian and Semitic, but to Euskarian, African, Ugro-Kurilian and American.

From the elliptic tendency and the great range of agglutinative definitives and other formatives, the same word becomes very protean when pursued through different vocabularies. This phenomenon is common to other formations possessed of kindred phonetic traits, and it is especially conspicuous in the American languages. I give a few examples. "Flesh"—(root *ri*, *li*, *di*, *zi*, &c)—*rytli*, *itl*, Andi; *retl*, Dido; *dik*, Kasi Kumuk, *dih*, *Aku-sha*; *ditch*, *dilch*, *dilichi*, *gizhik*, Misj.; *lle*, *zhik*, *zheh*, Circ.; *chor-zi*, Georg. (*liga*, *licha*, Fin.) "Water" (root *si*, *su*, &c),—*pseh*, *pse*, *psi*, *dseh*, Circ.; *chi*, *chii*, Misj.; *sin*, *shin*, *tzun*, *chim*, *chlim*, *htlim*, *htli*, *htlen*, *tlen* Lesg. "Bone" (root, *ra*, *ru*, *lu*, &c),—*ratl'ah*, *radla*, *rattl'ya*, *rehka*, *rotli*, *tlusa*, *tork*, *lika*, Lesgian, (Ugrian *lu*, *ly*, *luch*, *lusham*). "Fowl" (root *kot*, *kok* &c)—*kotom*, *kotum*, *kotam*, Misj.; *kged*, *kutlo*, Circ. (*kotomi*, *katai*, Georgian). "Year,"—*soso*, *son*, *shin*, *reshin*, Lesg.; *shia*, *zashu*, *sho*, *tyashu*, Misj.; *itlshes*, *sksik*, *skushik*, Circ.; *tzana* Lasi. "Sun,"—*barch*, *beri*, *barzhe*, Lesgi; *malch*, *mach*, Misj.; *marra*, Circ. (*baras*, "year", Hind). "Sun,"—*gede*, Lesg.; *dgeh*, *digga*, *dyga*, Circ. (the same root occurs in "Day,"—*jaka*, *ko*, Lesg.) "Lip,"—*kutvi*, *kuet*, *kutal*, *hut*, *kent*, Lesg. "Lip,"—*murchi*, Lesg.; *barde*, *bardash*, *batra*, Misj.; *bul*, *bila*, Iron. "Lip,"—*upchake*, *ipish*, *ipis*, Circ.; *lashi*, Georg. "Head,"—*kem*, *tkin*, Sesghi. "Salt,"—*zun*, *zon*, *zam*, *zio*, *chia*, *ze*, *psu*, Lesg.; *tuchi*, *tuch*, Misj.; *shug*, *chug*, *chush*, *jika*, Circ.; *zhumi*, Georg.; *chumo*, Lasi; *zach*, *zauche*, Oss. (Samoide *shak*, *sak*; Wogul *sech*, *syak*; Indo-Eur. *sel*, *sal*, *seltz*, *salt* &c.) In some of these examples the harsh elliptic and the harmonic tendencies which contend in the Caucasian phonology, may be remarked. Thus the *dilch* of Inguishi takes the harmonic Scythico-African form *dilichi* in Chenchenzi.

The phonology is at once Mediterranean (Euskaro-African,) American, Scythic and Tibeto-Ultraindian in its tendencies. The monosyllabic roots are common to the formation with many others, and cannot be regarded as peculiarly Caucasian. The combinations of the roots with definitives are common to it with Tibetan and Ultraindo-Gangetic to a limited extent, and with Scythic, N. E. Asian,* Indo-European, Iberian, Semitico-African, Dravirian and Asonesian languages to a very great extent. It has therefore a common basis with all these formations, glossarial and phonetic. The wide dissemination of the system must have taken place after the parent, undivided, or dominant formation had ceased to be purely monosyllabic, and the definitives had begun to be agglutinated with the roots, but had not been concentered. The same definitives have been diffused; but a root occurs bare or has different definitives, prefixed or postfixed, in different dialects and languages. At the same time, numerous roots have been dispersed very widely with the same definitives attached to them. In such cases it may be inferred that these combinations were early established in the first diffusive language of the common basis formation, whether from accident or euphony, or, what is more probable as a general cause, from each definitive having originally possessed

* Probably with American also, but the philology of American roots has not yet been cultivated sufficiently to enable us to make a trustworthy comparison, without a degree of labour which I cannot bestow on this subject.

† The Tibeto-Ultraindian, the more consonantal and elliptic Scythic (as Hungarian), the N. E. Asian, and many American, Indo-European, Semitico-African and Asonesian glossaries contain similar words. Numerous examples will be found in Chap. VI from Tibeto-Ultraindian vocabularies. I give a few here from other languages. SCYTHIC:—*Healthy*, pushn Vog. (push, pushma); *Fruit*, etl Ost. (etwel, Ost. telne Vog.); *Fowl*, thokm Ost. (kakas, kuko, atas &c.); *Horse*, tiau Ost. (lou, log Ost., lo Hung. Vog., vol Perm); *Snow*, Ost. Itoich (Vog. toita); *Day*, Ost. katl, kotl (Vog. katal, kotal). The adjacent prefixal VENISIAN affords examples strictly similar to the Tibeto-Ultraindian and Caucasian:—*Woman*, bgim; *Man*, blet. AINO or KURILIAN is still more Caucasian in its phonology, and elisions of the vowels of prefixes before consonants occur, e. g. *Head*, gpa. The adjacent JAPANESE is also very elliptic in actual speech, and many of the AMERICAN vocabularies afford words similar to the Caucasian. *Female*, nsu Otomi, (ciuatl Mex); *Father*, pshit Shahaptm; *Tongue*, mlash, Shah.; *Stone*, pshua (Tsi-Selish tashunsh); *One*, nggeteh, nekoteh Alg., skata, skat, Iroq.; *Mouth*, wdoon, wuttone, otoun Alg.; *Night*, tpoeh Al.; *Water*, nbeey, nippe Alg.; *Red*, psqouin, squayo, mehgam, mkuighen Alg. The more elliptic Asonesian languages, particularly the Bima-Pacific, contain similar words:—Timor Kupang, *Hair*, munga; *Night*, kduman; *Earth*, kdale; *Animal*, kmukiet. But the glossaries that most resemble the Caucasian in their phonetic character are the Semitico-African, and examples of their vocables will be found in a subsequent section.

Monosyllables formed by the coalescence of the final vowel of a prefix with the initial vowel of the root, are common to the Caucasian, Scythic and N. E. Asian languages.

a distinctive generic, or specific character, like the segregatives of the monosyllabic languages, and thus being only less essential to the meaning than the root itself. With the lapse of time and the growth of dialects, this character might be obscured and ultimately lost, and the different definitives become confounded. It is not probable that such a stage in the history of the definitives could be reached while the phonology remained purely monosyllabic. The progress to it must have been synchronous with that of agglutination. It is clear, at the same time, that the definitives had become absolute in sense and arbitrary in use before concretion was accomplished.

In Caucasian, definitives are attached to substantives, qualitives and numerals, as in the greater number of the formations both of the Old and New World, and generally postfixally. The principal are *na, no, la, li, ri, al, ar, n, l, r, &c.*; *sa, si, s; gu, go, ha, k &c.*; *de, te, t, tla, tl &c.*; *wa, ba, be, pa, ma, m, b, p.* As in the Ugro-Japanese, North East Asian, American and Tibeto-Ulra-indian languages, there are remnants of the prefixal system which prevails in South African, Malagasi and Niha-Polynesian. The most common prefix is the labial, which frequently loses its vowel and coalesces with the initial consonant of the root. This happens more especially in the curt and elliptic Circassian vocabularies. The following are examples :

Circ. *psherr*, she, "fat"; *pcha* "tree", (Misjegi che); *bseh*, *bsa*, "bow"; *mza, mze, mafa*, Misjegi, "fire" (Lesgian *za &c.*); Misjegi,—*psba, sha*, "ice."† Lesgian has often the full form *ma-*, *mi-*, *mu-* &c. where Circassian has *p*. Thus "gold", Circ. *pchi*, Kasi Kumuk *musi*, Misjegian *dishi*. The guttural also occurs prefixally in the forms *ga-*, *ke-* &c. *Te-*, *t-*, *de-* &c. are frequent initial definitives. They may be variations of the gutturals. *T* and *d* (chiefly the former) combine with *la, l*, particularly in some of the Lesgian languages, such as Andi. *T* also proceeds *k*, but rarely. The illustrations already given of the variable forms of Caucasian vocables furnish examples of the prefixed and postfixed definitives.

The languages that preserve the strongest affinity with the Caucasian in their use of definitive prefixes as well as postfixes, are the Yeniseian and the N. E. Asian, the latter having also a higher degree of agglutination and ellipsis than the Scythic, and thus

remaining closer to the Caucaso-American or Mediterraneo-American phonology.

The pronouns shew that the Caucasian languages have passed through a succession of formations. In general they are pleonastically attached to the verb or action-word; and as, in some cases, new terms have been adopted for the separate forms, the same appearance of primitive inflexion is given that is found in the Iranian languages. Particles of assertion and time are also agglutinated with the verb and pronoun. The root itself is phonetically varied or inflected as in the Semitic, Berber and Nubian formations, although much less frequently and regularly than in the first. In some of the languages the pronoun is prefixed and not postfixed. All this produces points of contact with the Scythic, Semitic, African, Iranian, and American verb systems. The following are examples of the pronominal agglutination and reflection.

Circassian (Kabardin)

- | | |
|-------------------------------|---------------------------------|
| S. 1. <i>ssiesch</i> , I have | P. 1. <i>diesch</i> , We have |
| 2. <i>wuyesch</i> , Thou hast | 2. <i>fiachesch</i> , You have |
| 3. <i>iyesch</i> , He has | 3. <i>yiachesch</i> , They have |

In this generic verb the pronoun is directly prefixed to the assertive, without pleonasm. In the 2nd and 3rd persons of the plural, *ach* is the plural element, assisted by a phonetic change or flexion, in the pronoun. In the 2nd person the broad labial of the singular takes the slender form, and in the 3rd the *iy* of the singular is inverted.

yewon, "to beat"

- | | |
|-----------------------------|---------------------------|
| S. 1. <i>sse ssieh</i> worr | P. 1. <i>deh die</i> worr |
| 2. <i>uo wie</i> worr | 2. <i>feh fie</i> worr |
| 3. <i>arr ye</i> worr | 3. <i>ah scher</i> yeworr |

Here the pronoun is repeated prefixally save in the 3rd person. The *ie* of the 1st and 2nd appears to be merely *ye* slightly modified by the agglutinated pronoun, so that we might write *sse ss-yeworr*, *wo w-yewoor*, *arr yeworr*, *deh d-yeworr*, *feh f-yeworr*, *ah-sch-er yeworr*.

With this compare the Tumali conjugation (Mid-African). The root is the verb absolute, *en*, the same definitive that forms one of the Scythic verbs absolute (*on, ol*).

- S. 1. *ngi yen*
 2. *ngo wen*
 3. *ngu en*

- P. 1. *ngi-n-de nen*
 2. *ngo-n-da ngon*
 3. *nge-n-da ken*

Here the pronouns are evidently more full roots reduced to the vowels *i*, *o*, *u* by agglutination, with a definitive prefix, reduced, by the same means, to *ñg*. The initial *y* of the 1st person is a repetition of the root of the pronoun, *i*, in a hard or consonantal form, and that of the 2nd person, *w*, is the *o* of the root in a similar form. The plurals are formed in a somewhat different manner. The *n* of *nen* appears to be the plural particle *n*; *ngo-* is the 2nd pronoun itself; *k-* is a hard form of *ñg*. The pronoun of the 2nd person, *o* or *no*, is evidently the same as the Circassian *uo*, *w*. It occurs in other Mid-African languages.

A perfect analogy to the acquired flexion of the three Tumali pronouns is found in another Caucasian language, the Awar, *diz* "I", *duz*, "Thou", *dos* "He &c.", a system which only differs from the Tumali in reversing the applications of *o* and *u*. Similar flexions occur in the allied American systems, and to a partial extent in Dravirian.

In the other tenses of the Kabardinian conjugation the root is further modified by contraction and amplification. I only give the 1st person of each,

sse *siewo-asch*
 sse *ke-so-wo-sch-er*
 sse *ke-so-wo-a-chess*
 sse *ke-so-wo-an-chess*

The 3rd person, it may be remarked, changes in some tenses from *arr* to *abe* in the Singular, and from *ah'* to *abih* in the Plural. This variation in the 3rd person is carried to a much greater extent in Georgian, and is obviously a consequence of the original formation possessing a large range of definitives, which the protean phonology still further increased. In the South African formation the full stock of definitives is preserved, and as they are not only prefixed to substantives but to all words governed by substantives, they are reflected in verbs as the 3rd person, the form of which thus varies with the class to which the nominative belongs. There can be no doubt, as I have already more than once remarked, that the numerous definitives of the Tibeto-Ultradian, Scythic, Caucasian and African systems originally marked

distinct classes of substantives,—animate and inanimate, human and irrational, male and female &c,—and that in the monosyllabic stage, their functions were similar to those of the segregatives of the Chinese and Ultraindian formations. In many languages of different formations various remnants of this definitive classification are still preserved.

In Absne the pronouns are possessively prefixed in a contracted state to substantives also, e. g., *sab*, "my-father"; *wab*, "thy-father"; *tab*, "his-father"; *hab*, "our-father"; *s'ab*, "your-father"; *rab*, "their-father." * When preceding a verb, the forms are S. *sara*, *wara*, *ui*; P. *hara*, *s'aara*, *ubart*,—the final *ra* of the 1st and 2nd persons being obviously the definitive *ra*. Pronouns postfix or prefix definitives in Scythico-Dravirian, American, Africo-Semitic, Asonesian and other formations.

Example of a verb (*I ride, thou ridest* &c).

- | | |
|-------------------------------|------------------------------|
| S. 1. <i>sara s-c'wisloit</i> | P. 1. <i>kara hacwisloit</i> |
| 2. <i>nara u-c'wisloit</i> | 2. <i>s'ara s'cwisloit</i> |
| 3. <i>ui iewisloit</i> | 3. <i>ubart r-cwisloit</i> |

In the Iron or Ossetic, the pronoun *ir* postplaced as in the Scythic, Iranian, Dravirian, and partially in the Semitico-African formations.

- | | |
|-----------------------------------|--------------------------|
| S. 1. <i>as</i> or <i>az datn</i> | P. 1. <i>mach dateb</i> |
| 2. <i>di datis</i> | 2. <i>smach ratet</i> |
| 3. <i>uy, razzen</i> | 3. <i>udin razzis-ti</i> |

In the examples given by Dr Latham from Rosen the pronominal postfixes are, in the Present, 1, in S., *am* P., 2, *is* S., *ut'* P.; 3, *i* S.; *inc'* P. In the other tenses and moods there is some variation, the most common series of terminals being S. 1, *on*; 2, *ai*; 3, *a* or *ai*; P. 1, *am*; 2, *at*; 3, *oi* or *ai*.

Present (*qus*, to hear).

- | | |
|---------------------|---------------------|
| S. 1. <i>qus-in</i> | P. 1. <i>qus-am</i> |
| <i>qus-is</i> | <i>qus-ut'</i> |
| <i>qus-i</i> | <i>pus-inc'</i> |

* Compare American (e. g. Delaware *nooch*, *kooch*, "my-father" "thy-father"; Mexican, *nokal*, *mokal*, *ikal*, *tokal*, *amokal*, *inkal* "my-, thy-, his-, our-, your-, their-house"); Scythic (e. g. Turk. *babam*, *baban*, *babasi* "father-my-, thy-, his-"; Hung. *szam*, *szad*, *szaya*, "dog-my-, thy-, his-"); Semitico-African; Draviro-Australian; and Malayu-Polynesian languages.

Some Scythic and American languages have double plurals, i. e. both the pronoun and substantive are pluralised. This does not appear to occur in Caucasian,

Perfect.

- S. 1. *fe-qus-t-on*
 fe-qus-t-ai
 fe-qus-t-a

- P. 1. *fe-qus-t-am*
 2. *fe-qus-t-at'*
 3. *fe-qus-t-oi*

Future.

- S. 1. *bai-qus-gin-an*
 bai-qus-gin-an
 bai-qus-gin-i

- P. 1. *bai-qus-gi-st-am*
 2. *bai-qus-gi-st-ut*
 3. *bai-qus-gi-st-i*

It will be observed that in addition to the prefixes *fe* and *bai* the Perfect and Future have postfixes to which the pronoun is affixed. These postfixes with their pronouns are the verb absolute. (Present *st*, Perf. *u-t*, Fut. *u-gin*).

The original 1st pronoun Sing. has been in *n* like the Dravirian, Semitic and many African forms. It may be preserved in the final of *man*, a form of this pronoun still used in the oblique cases, and in the Lesghian *na* (Kasi Kumuk), as well as in the final *n* of the other Lesghian dialects,—*dun*, *ton*, *den*, *ten*, but these finals rather appear to be definitives. The form in *s*, *z* is Circassian, Iranian, Africo-Semitic, and American; and as it is only used in the nominative, it has probably been borrowed from an adjacent formation (*z* end *az-em*, Lith. *asz*, O. Slow. *az*.) The plural in several of these systems is in *m* or *b* (also a Pl. element in Dravirian, and N. Indian languages, and the true root of the 1st person in Scythic and Iranian). It appears in the Iron plural in the separate form *mach* in which *ach* is the plural postfix. It occurs in the Kabardinian 2nd and 3rd persons (*fiach*, *yiach*), in the Circassian plural postfix of nouns *k'va* (*k* for *ch*), and in the same postfix in Iron itself (*t'*=*k'*=*ch*). The original *m* of the 1st person becomes *b* in the reflected postfixual verbal form, as given by Adelung. Ex. *mach steb*, *mach ratab*. It is curious that the 2nd pronoun in its plural postfixes the full plural form of the 1st, *s mach* or *si-mach*, an Indo-European trait. Georgian has the Scythico-Iranian *me* in the nominative of the 1st person singular and in the prefixed *m*-(objective) and *w*-(agentive), but in the oblique cases and in the plural it takes the sibilant, under the form *tche*, equivalent to *sse*, *sa*, *su*, *so*, *sua* of Circassian and Misjegian. The Lesghian *du*, *di*, *dun*, &c. is a variation of *su*, *se* &c., the commutation of the sibilants and dentals being frequent. Georgian also possesses the plural particle of Circassian and Iron under the form—*th*, a postfix which

the verbal root takes in the 1st and 2nd persons. It also occurs in the oblique cases of the plural of the 3rd pronoun. It may be Indo-European (*s, th*). The Iron postfix of the 2nd person singular, *s, is*, is preserved in the plural of the separate form, *si-mach, s mach*, as in the Absne pl. *s*. The separate form of the singular, *di*, and the postfix of the plural *et, ut, at* appear to be both variations of *si, s*. It is probably related to the Georgian *chen*, plural *thh*-. In the latter the dento-sibilant combines with a guttural which re-appears in the prefixed objective form of the 2nd pronoun *g-*. The 3rd postfix *i* sing., *oi* pl. is a reflex of the separate *uy*. In some tenses the plural is *ine'*, which appears to be a contracted reflex of the separate form *udin, an'ni*, with the addition of the Scythico-Iranian plural particle *i*. In some tenses phonetic flexion of the root occurs, 1 as *ratt-u-n*, 2 *di rat-a-i*, 3 *uy rat-a*, &c.; 1 as *razzin*, 2 *di razzine*, 3 *uy razz-eni*, &c. In some of these instances the pronoun is cast aside and a pure phonetic flexion of the preceding terminal used. In the numerals similar instances of pure flexion and of combined flexion and agglutination occur.

The postfixal position of the pronoun is Scythic and Dravirian and the more agglutinative Scythic languages also present flexional variations of it. But the Ossetic variations are more numerous and flexional owing to the more agglutinative and elliptic phonology. They are thus intermediate between the Scythico-Dravirian and the same system as it occurs in Indo-European. The analogy of the Ossetic system to that of the Iranian conjugations is so complete, that no doubt can be entertained that the ultimate or flexional and abstract stage of the latter was immediately preceded by an agglutinative one like the Ossetic. The Iron substantives postfix directives &c., the plural sign *t'* preceding that of case, as in the Tibeto-Burman, Scythic, African and most other systems.

S. Nom. *fid*

P. *fid-t-a*

Gen. *fid-i*

fid-t'-i

Dat. *fid-en*

fid-t-am

Ab. *fid-ei*

fid-t-ei

In the dative the flexion of *m* for *n* is Caucasian, Scythic and Indo-European.

Georgian has fundamentally a similar phonetic and ideologic character to the Caucasian languages, and may be included in the same formation, although it is more inflexional than Circassian. It has many harsh combinations of consonants like Circassian.

Adelung instances chhhbo, tzminda, mtha, thequen, vprosi, and vmsthrosi. To these may be added, in further illustration of the nature of the combinations, t'ma, tkue, kmari, mtzgrti, k'lde, stzore, bneli, rka, rgili, grdseli.

The details given by Brosset and the author of the first portion of the *Elemens de la langue Georgienne* disclose further and striking African affinities. A great variety of modified meanings and applications are given to roots by prefixes and postfixes, both being generally combined, in accordance with a common African habit, and one which appears to have generally prevailed at one period in the North and Mid Asian families, as it is still preserved in Tibetan, Yeniseian, and some of the N. E. languages, as well as in Scythic glossaries to a less extent. The five vowels *a, e, i, o, u* and three consonants *m, n* and *s*, are employed both prefixually and postfixually as formatives. The seven consonants *b, d, v*, or *w, k', th, l, r*, are only used as postfixes, and *t* very rarely. Substantives have generally a vocalic agentive postfix, *-a, e, i, o* or *u*. The vowels are used as agentive or definitive prefixes in most of the South and Mid African languages, and they abound in Scythic and N. E. Asian vocabularies. The demonstrative *-man* is used as a responsive agentive postfix, a usage which has a parallel in Polynesian. It is simply an emphatic definitive postfix. There are no postfixes or flexions to indicate gender or any other generic division of substantives, such as animate and inanimate. The plural postfix (*ebi* or *ni*). The possessive and directives are postfixed. The possessive flexionally distinguishes common from proper names, the former taking *-sa* and the latter *-si*, sometimes *-s*. There is no objective postfix. The possessive serves for the dative also. In some cases the agentive postfixual vowels are elided, in others not. The plural postfix (*ebi* or *-ni*) is followed by the possessives and directives, as in Caucasian. Many mutations, mostly euphonic, occur in the junction of postfixes with roots. Substantives have formative prefixes and postfixes which modify their meaning. Thus they are rendered abstract or locative by prefixing *sa*, "for," accompanied generally by a change of the final vowel or agentive postfix of the substantive. This is a remarkable coincidence with African ideology. Similar traits occur in the allied but less African and more modified Indo-European. Ex. from marili, "salt," is formed samarile, "a

salt cellar," from *mephe*, "king," *samephō*, "a kingdom;" *brdzeni*, "wise," *sabrdzne*, "wisdom;" *Karthweli* "a Georgian," *Sokarthwelo*, "Georgia;" *Tsitsiani*, a family name, *Satsitsiano*, the family estate of the *Tsitsiani*. *Elī* forms patronymics (e. g. *Gorīelī*, an inhabitant of *Gori*); *ulī*, *urī* (the same liquid particle with a different prefixal vowel) is gentile, and is also more generically used to designate what belongs to a person; *-oba*, *-eba* forms abstract words. The prefix *i-* indicates simulation (a Scythic and Africo-Asonesian form). Thus from *regweni*, "stupid," comes *iregweni*, "he who feigns stupidity." The postfix *-iani* renders a word qualitative (e. g. *okro*, "gold," *okro-iani*, "golden"). The prefix *me-*, with a change of the final vowel to *e* is equivalent to the English *-er* (e. g. *thewzi*, "fish," *me-thewze*, "a fisher.") Qualitatives are regularly formed by postfixing *e-li*, *a-li*, *i-li* to the substantive, which generally loses its final or agentive vowel. Qualitatives are declined like substantives, but when used with substantives the latter only take the case postfixes.

The verb forms are very numerous, and the agglutinative, elliptic and euphonic phonology gives to the whole system of conjugation an appearance of great complexity, elaboration and irregularity. It is said in the Grammar that the forms of the verbs are innumerable, almost every verb having its particular conjugation. The 1st personal pronoun is prefixed in a modified and contracted form (*v-*) and the third is postfixed (*-a* generally, but sometimes *-is*, or *s*). The second person does not take an agentive prefixal or affixal form. In the plural *th* (the plural postfix of Ossetic nouns as well as pronouns *t'*, *ch*) is postfixed to the root in the 1st and 2nd persons. The postfixes of the 3rd person have "innumerable variations," which, says the Grammar, can only be learned by practice. The pronoun is agglutinated objectively as well as agentively with the verb, producing transition forms as in Semitico-African, Iberian, Dravido-Australian, American &c. Ex. *me gadzlew*, "I thee-give;" *mathsquens*, "*me-hurts-he*," i. e. "he hurts me;" *gathsquens*, "*thee-hurts-he*"; *ubdzanebs* "him-commands-*he*." The collocation is irregular, but usually inverted. The object precedes the action and frequently the agent also, particularly when it is a pronoun combined with the verb, (e. g. *tc'iwili makous*, pain I-have). The agent is often

placed after the action, and this is in accordance with the archaic construction, if we may draw any inference from the agglutinated transition forms, in which the objective pronominal letter is prefixed and the agentive suffixed to the action word. This collocation is more inverted even than Scythic and connects Georgian with Aramæan. Generally the possessive follows the word to which it relates, and the qualitative the substantive.

Glossarily the Caucaso-Georgian languages have numerous affinities with all the other formations of the old world, including the Indo-European. The most striking of the more remote appear to be those with the Mid and North Asiatic, on the one side, and with the African and Dravirian on the other. As the Asonesian vocabularies are to a large extent, a reflection of the Aso-African, the Caucasian have, of course, many affinities with them also.

The prevalent pronominal system appears to have had its 1st person in *s*, *h*, *tche*, *d*, *n*, and its 2nd in *d*, *s*, *ch* and *w*. The labial also occurs in the 1st person in Georgian in the separate, the prefixed objective, and the prefixed agentive forms, but the oblique cases and the plural (*tche*) ad here to what appears to have been the primary Caucaso-Georgian root. In Iron it occurs in the plural postf. In the former case it is evidently the Scythic and Indo-European labial root. In the Iron the analogy of both postfixes of the 1st person *n*, *in*, *on* S., *am*, *b*, P., to Dravirian, may throw some doubt on the labial being directly Scythic and Indo-European. The primary Caucaso-Georgian system is not the prevalent Scythic and Indo-European, although allied to both by one form of the 2nd person. It belongs to an older dominant and diffusive formation, which spread over America on the one side and over Africa and Europe on the other. In N. and N. E. Asia it has left traces in the less Scythicised languages. Yeniseian preserves the Caucasian system intact. "I," *dy*, *di*, *dya*, *dia*, contracted to *ya* (by inversion *ai*) and *a*; Pl. *et* (Lesgi. *di*, *du*, *don*, Kabard. *si*, P. *di*; Awar *d-i-z*; Absne *s*; Iron *s*, *n*; Georg. *tche*). "Thou" *au*, *hytsche*; (Kab. *wu*, *uo*; Aw. *d-u-z*; Abs. *w*, *wa-ra*; Abs. Pl. *s*, *is*, Iron *di*, *s*, *et* &c.) "He," *bu*, *bari* (Kabard. *ube*, *ar*, P. *abih*; Absne P. *ui*, *ubar-t*, *t* being a P. postf).

The American systems are still more complete copies of the Caucasian, and, like it, frequently present the appearance of a transfer of the same root from one person to another.

In Africa and Europe, as in N. Asia, the same system appears to have preceded the Scythic, for the Semitico-Hottentot and the Euskarian are Caucaso-American. The Korano flexional forms *s* "I" *sa* "thou" have a completely Caucaso-American character.

To the same archaic, far spreading and flexional pronominal system, we must refer the Draviro-Australian. "I," *en, ne, na* (Iron, postf., *n, in, on*) ; "Thou," *ni* (Iron) *di*. The Athapascan "I" *ne*, "Thou" *ni*, has the Dravirian flexion of the vowel without any phonetic variation of the root, but Athapascan and other American languages have also these variations as in Caucasian, (*d, t, s* &c). The Draviro-Australian definitive *va, vu, bu* is Caucasian, as well as Scythic &c.

The pronominal plural particles *t, ch, th, k* are Scythic. The pronominal postf. *ra* of Absne is a very widely spread postf. (Scythic, African &c). The 3rd pron. plural of Kabard., *abih* (Sing. *ube*), and Absne, *ubart*, is used as a Plural postf. for Georgian nouns (*ebi*). The other Pl. postf. *ni* is also Scythic.

As in Scythic, Semitico-African, Euskarian and Indo-European, definitives have become verbs absolute. The 3rd personal pronouns of Absne *t*, Georgian *is, s*, are the *t, s* of Iron and Iranian roots of the verb absolute.

Among the special geographical and archaic expansions of language indicated by the pronominal affinities, that which connects the Draviro-Australian and the Yeniseian with the Caucasian is one of the most important. That a diffusive Caucasian formation, older than the Scythic in its distinctive form, embraced N. and N. E. Asia as well as India is further evidenced by the large proportion of roots common to Dravirian and Draviro-Australian with the Caucasian, and with Yeniseian and the adjacent N. and N. E. Asiatic languages. The Samoiede, like the more exposed Dravirian, has subsequently received a more distinctively Scythic form, the latter in a considerably less degree than the former ; but the Kol and Australian, modified though they have been by the influence of Ultrai ndian formations—and the Australian by Malagasi also—preserve Caucaso-American and Caucaso-African traits no longer found in Dravirian, in Tatar, or even in Ugrian. Amongst these are the so called transition forms. Caucasian, on the other hand, like Indo-European appears to have lost the double form of the 1st personal pronoun plural, preserved in Dravirians

Scythic, American, Asonesian and some African languages.

From this brief and very partial review we may infer that the Caucaso-Georgian formation has passed through a succession of changes. Its earliest form was monosyllabic, and in this form it probably possessed, as separate particles, the ancient Asiatic definitives (Tibeto-Ultraindian, Scythic, African, Iranian, Semitic, Dravirian, Asonesian). An agglutinative phonology was superinduced, and this led to the combinations, elisions, inversions, incorporations and flexions which now characterise the structure of these languages. The antiquity of this revolution in the phonology is probably as great as the similar one which transformed the adjacent Scythic, Iranian, and Semitic languages, or their mother-formations. In what particular language or country, and at what period of man's history the change originated, it is now impossible to ascertain, but there can be no doubt that it was a progressive one. By its general character the Caucasian formation allies itself more closely to the proto-Scythic and Upper Nilotic than to any others. The absence of the sex definitives and flexions of the Iranian, Dravirian, Semitico-Libyan and the cognate archaic African languages,—including the Hottentot,—is a strong bond between the American, Scythic, Caucasian and the remaining African formations. The agglutinative and elliptic structure, the incorporation of the pronoun with other words both agentively and objectively, the mixture of prefixes and postfixes, but with a tendency to postposition and inversion, are American and Euskarian, and, so far as our scanty knowledge of the N. E. Asian languages and the affinities between Ugrian and American enable us to judge, they were proto-Scythic also. In the Caucasian as in the Scythic, and, it may be added, the American and African circles, some languages appear to have preserved the crude monosyllabic nucleus more distinctly than others, and there has probably also been a return to it, on the decay of the more elaborate forms of the earlier pleonastic, harmonic and agglutinative development. The geographical position of the proper Caucasians accounts for their vocabularies retaining many roots in forms similar to those of the Tibetan, the N. E. Asian, and the cruder African and American languages.

Viewing the general character of the phonology and flexions, the collocation, and the crude and monosyllabic nature of the

roots, together, the Caucasian formation resembles the Nubian more than any other; and the presence of two such developments on the opposite sides of the Semitic or Syro-Libyan province is remarkable. Both have archaic affinities to Semitic, but they resemble each other more closely in positive and negative characters. In its non-Semitic traits the Caucasian formation is Scythic, and the Nubian also possesses to a considerable extent, a Scythic form, whatever explanation of its origin may be adopted. So strong is the general resemblance of the less flexional Caucasian languages to the Nubian or Upper Nilotic group, that it may be concluded that the cruder Caucasian represents the form of the south eastern proto-Scythic languages, at the period when that formation penetrated into Africa. The influence of the other African formations has since modified the form of the Nubian languages, and in the Caucasian formation, as in the adjacent Semitic and Iranian, the strongly elliptic and agglutinative phonology, and the action and reaction of the various conterminous formations and languages of S. W. Asia in which it prevailed, have induced a much higher development of inflexion than is to be found in any of the proper African formations. Thus if the Caucasian phonology, with its flexional results, represents an early stage of the Indo-European and Semitic developments, in many respects akin to Euskarian and American, the Upper Nilotic system represents an early stage of the Caucasian, or one more akin to Tibeto-Burman and Scythic. To complete the historical links, it may be added that other African systems, such as the Egyptian, the Hottentot and the Mandingo, represent still older and cruder stages of the S. W. Asian phonology, and consequently of the generally linguistic structure also, for the history of the development of language is mainly the history of phonetic development.

From the circumstance of the Caucaso-Georgian languages having been saved by the geographical character of their province from assimilation to any of the later languages that have spread and prevailed around it—Semitic, Scythic, and Indo-European—and probably from the domination of some older ones, also, they present a wider range of affinities than all others. For their crude basis is still remarkably distinct, and by this, with its definitive prefixes, they carry us back to a period when a formation akin to

Tibetan, but not Scythicised like it, spread over Asia. The nominal system, with the agglutinative and partially harmonic phonology, speak of a later development, in which we find the springs of all the other agglutinative or agglomerative formations in the world. While by many of its traits this formation leans to its southern and eastern neighbours, Semitico-African and Iranian, it has others which are Scythic. A similar remark applies to Euskarian and to Nubian, both of which appear to have been originally Semitico-Hottentot in its crudest form, like Egyptian and probably all the other African languages. After a development of this nucleus in different directions and various degrees, Euskarian, Caucasian, Iranian and Nubian or Mid-African appear to have become partially Scythicised.

In using such terms as Caucaso-African, Caucaso-American, Caucaso-Euskarian, Caucaso-Australian, I must guard myself from the supposition that I regard the Caucasus as the perennial fount of successive formations, or modifications of formations. The dominant and dispersive races that have carried these formations over large portions of the earth's surface, have left vestiges on the Caucasian languages of their predominance around and within the Caucasus, but this proves nothing by itself as to the political and ethnic position of the Caucasians. The character of the country has helped to retain forms of human speech that have been modified more deeply, metamorphosed or obliterated in the more accessible portions of S. W. Asia. There can be little doubt that this region has been one of the chief sources of human civilisation and ethnic change, but we cannot yet trace the origin of archaic formations to particular provinces in it. We cannot say where or when the Semitic, the Iranian, the Euskarian or any of the Semitico-African formations first took its distinctive shape.

NOTE.

Klaproth pointed out the large glossarial affinity between the Caucasian and the Scythic languages, particularly the Samoiède and Ugro-Fin. The Iron or Ossetic he placed in the Indo-European family, not only from the approximation of its flexion or quasi-flexion to the Iranian, but from its glossarial affinity with the Persian dialects in particular. Bopp, Brosset and most other philologists have taken a similar view both of the Caucasian and Georgian languages. Klaproth remarked the glossarial affinities of Georgian to N. Asiatic languages and Du Ponceau pointed out the resemblance of some of its traits to those of N. American tongues. Prichard set it down as a speech "by itself, unconnected, or but distantly connected with any other idiom." Dr. Latham has recently opposed the opi-

nions of Bopp, Brosset &c and maintained, on glossarial evidence, that the Caucasio-Georgian languages have the closest philological affinities with the Chinese alliance (Chinese, Ultraindian, Gangetic, Tibetan). Mr Norris, he informs us, has arrived at the same conclusion on grammatical grounds.

The ultimate basis of every language is necessarily monosyllabic. In the Turanian and Dravirian, in most of the African and Asonesian, and many of the American, in a word in all merely agglomerative, or agglutinative, languages, the monosyllabic roots are little concealed. Where agglutination and elision are carried far and the compounds so produced begin to acquire a concrete character, the monosyllabic roots are more disguised; and when concretion becomes complete, and an inflexional form is thereby induced, the difficulty of reducing the glossary to its monosyllabic elements is greatly increased. So long as the full forms of the prefixes, infixes or postfixes that have been transformed into flexions, are preserved separately in the same language, it can hardly be said to have passed out of the agglutinative class. When, from the substitution of new separate terms,—generally, but not always, acquisitions from foreign languages,—the agglutinated inseparable particles can only be identified as such through comparative philology, they have acquired a properly flexional character. That the roots of the Caucasian alliance are monosyllabic proves nothing as to its linguistic position. That they shew a large affinity with the Scythic, the Chino-Ultraindian, the Tibeto-Ultraindian, and, it may be added, with the Dravirian, Semitico-African and even with the Iranian languages, proves little more, and cannot certainly establish the Chinese character of the formation. Its general position must be determined by the mode in which roots (including particles) are compounded. In Chinese and the languages of a similar development there is no composition either by simple agglomeration aided by accent, or by agglutination. In the Tibeto-Ultraindian alliance there is a slight development of agglutination, ellipsis, and euphonic mutation of sounds. In the Scythic and Dravirian languages it is much stronger, but the general tendency is to harmonic agglomeration and expansion rather than to ellipsis and agglutination. In the Caucasian formation the latter tendency is much more powerful than in any of the preceding alliances. This tendency is one in kind wherever it is found, and it is found in all languages that have passed out of the purely crude stage of phonology. The only room for difference is in degree, and in this respect the Caucasian phonology is at the farthest remove from Chino-Ultraindian and Tibeto-Ultraindian,—Chinese being out of the question. It approaches much more closely to that of the Euskarian, African and American languages. Its agglomerative power is slight compared with that of certain of these tongues, but so is that of the Semitic, many of the African, Iranian, and Scythic, and even of some of the American languages. The monosyllabic basis is not more obtrusive than in most of these, and inflexion is not less developed than in the majority of the African, while it is more so than in the Scythic formations. The ideology, in its general character, has Scythic, Iberian, Semitic, African and Iranian affinities. It has no special affinities with Chinese, and few with the Tibeto-Ultraindian alliance that are not Scythic also. If the formation had been less agglutinative and flexional, it is probable that its crude basis would have been less remarked.

Sec. 5. EUSKARIAN.

Phonetically Euskarian is highly vocalic, harmonic, liquid and sibilant; like many Fino-Japanese, Dravirian and African languages. Amongst its few consonantal combinations are *tz*, *st*, *br*, *dr*, *tr*. Like the Ugro-Japanese formation on the one side and the Semitico-African on the other, it has the sonant sibilant *z* which is often interchangeable with *ch* and *tz*. Most of the consonants have slightly aspirated, and also attenuated, as well as pure and full, forms. The most common non-vocalic terminals are *k* (which in many cases is evidently the plural or collective definitive,) *n*, and the liquids *l*, *r*, *n*. *T*, *ts*, *tz*, *z*, *st* appear to

occur rarely. Double vowels are frequent both as medials and finals (e. g. *ia, ea, oa, ua, au, eia, oia, ai, aia*). The following are examples of highly vocalic words, *ieia, iesia, mihia, ihia, sinia, neuria, gaiia, faiia, aoa*, to which I add the following cited by Humboldt for a different purpose, *ai, ao, au, ea, ee, ei, eo, eu, ia, ie, ii, io, iu, oa, oe, oi, ua, ue*. The phonology is remarkably agglutinative and elliptic, and the coalition of the sounds thus brought in contact in compounds is attended by euphonic mutations which tend still further to disguise the roots. Thus *wra atza* form in combination *ugatza*; *odeia otsa* make *odotsa*; *zaldia duena* make *zalduna*. Similar composite words are very numerous.

In structure Euskarian has special affinities with African, Caucasian, Scythic and American formations. Like Scythic it is postpositional and postfixal. Almost all the nouns in the vocabulary terminate in the vowel *a*, which is obviously the definitive postfixed. In the plural it becomes *ak* (Scythic). As in the Caucasian, Scythic and most of the American and African languages there are no regular postfixes of gender, but the 2nd pronoun has masc. and fem. forms. When the substantive is followed by a qualitative the latter takes the postfix, e. g. *emaste* an "woman good," *emaste ana* "woman good-*the*," i. e. "the good woman." It has an agentive postfix *k*, and the possessive and directives are also postfixed particles.

All languages which are crude in ideology and agglutinative in phonology possess great freedom and facility in combining words and particles. Almost any words may be combined and the combination treated as a single word. Euskarian enjoys this power in an extraordinary degree, although other languages of similar formations, such as the American, the African, the Malagasi and Philippine, stand on nearly the same footing with it in this respect, as in many others. Thus a substantive with a postfixed directive and definitive may superadd an active postfix and be transformed into a word of action. *Aita* "father" *aitaren*, "father-of"; *aitarena* "father-of-the"; *aitarenatu*, "father-of-the-making," i. e. to make a thing the father's (property). Some of the postfixed formatives, or substantive words used as such, express remarkable distinctions. Thus two words are used to form abstract nouns,—*tasuna* and *keria*, the former indicating that the pro-

perty is a good one and the latter that it is the reverse.* Any words of direction may be postplaced, but there are only three particles which have a true flexional character,—the agentive, the possessive and the dative. Substantives which have a postfixed definitive,—a Sing., *ak* Pl. (Scythic) retain it when they take the case particles, save in the Poss. Pl. The definitive by itself forms the passive nominative as well as the general objective. When the substantive is active or agentive an agentive postfix, *k*, follows the definitive (*a-k*). This distinction between definite and indefinite declensions has a parallel in Philippine ideology in which the presence or absence of the definitive renders the mode of speech active or passive (possessive).† The possessive postfix is the Scythic and almost universal *n* (with *r* interposed when the root or theme ends in a vowel, as is necessarily the case with all definitive words in the singular) and the dative *ho* “for” and *i* “to”‡ (with *r* interposed as above); *n* is also locative “in” &c. The agentive in the Sing. being the same as the Plural postfix is distinguished from it by having the accent on the postfix, (e. g. *guizo nák*), the plural having it on the last syllable of the root, (*guizó nak*.)

The pronominal system is Caucaso-Semitic and Caucaso-American. The 1st person singular has *t* in the agentive and *n* in the objective, with *g*, *gu* in the plural (*n*, *t*, *k*, *g*, are common in the allied systems; *k*, *g* as well as *n*, *t*, are Semitico-African &c, and in Berber *g* marks the plural of the 1st person prefixual and postfixual). The 2nd person has three forms, *k* masc., *n* fem, and *zu*, *u*, *z* honorific (Comp. Berber *ik* masc. Egypt. *entek* masc., Berb. *im* fem; in Hebrew final *m* is masc. and final *n* fem. in both 2nd and 3rd persons plural; *n* also occurs as a fem. termi-

* Similar distinctions are found in some other formative languages.

† The Euskarian definitive is of a simpler character, and rather resembles the postfixed and generally concreted definitives of Scythic and Indo-European. In Hungarian the article precedes the root, but in the other Scythic languages follows it as in Euskarian. The Euskarian *a* like the Hungarian *a'*, *az* and the English *the* appears to be indefinite in number as it is preserved in the Plural, with the exception of the Possessive. The Scythic system has vestiges of distinctive Singular and Plural definitive postfixes, *n* being still Singular in Manchu with substantives and in some other languages with pronouns. *A* as a definitive is Dravirian &c. (*ante* vol. vii. p. 216).

‡ The proper Dative *i* is probably the Scythic and Indo-European *i*, Possessive, Objective, Dative in different languages, and derived from the Possessive *ni*, *in*. When used assertively, the possessive and locative *n* is Present, the dative *i* Perfect and the dative *ho* Future, as M. Darrigol has shewn (*vide ante*, vol. vii. p. 112).

nal in the Arabic 3rd person). The 3rd person has *d* in the objective, corresponding with the Berber *th*.

As in the African and American formations and indeed in nearly all others, the expression of being and action falls upon the pronoun, which is incorporated in a highly condensed form with the word of action. It is here that the Euskarian decidedly allies itself with the adjacent African more closely than with the American formations. In the latter the verb substantive is wanting in most languages and is of secondary importance where it occurs, the pronoun being directly incorporated in its agentive and objective forms with substantives, qualitives and particles, which it animates or renders assertive. In this respect the American languages seem to go back to the Caucaso-Scythic and Caucaso-Australian and Caucaso-Semitic stage of Africo-Semitic formations. In Euskarian as in many of the African languages the pronoun does not thus combine with substantives &c. It combines only with a few words or particles equivalent to the verb absolute, but the radical nature and origin of which appears to demand further enquiry*. Words of action and being are generally participial or substantival in form and remain such with no other modification than the reception of an active or passive postfix, the expression of action or assertion lying wholly in the combined or agglutinated pronouns and verbs absolute. The combinations are complex like the African and American, and resemble the North African or Berber more than any other. But they have special characters, embracing refinements not found in other systems, and attesting the great antiquity of the Euskarian as independent representative of one of the varieties of the archaic Mediterranean formation. Besides the changes which the generic verb undergoes from the changes in the incorporated pronouns and in their relations, it is varied to a great extent by particles and flexions of mood, time &c. There are eight regular genera or forms of the verb, and each is varied according to the different combinations of pronouns which may enter into it. The total number of these variations for all the genera is 206. The first 4 genera are, 1st, purely active, 2d purely passive, 3d, mixed active, and 4th, mixed passive. In the 1st both the participial root and the auxiliary are

* They are probably definitives as in other formations. *Au, o*, appears to be the Scythico-African labial definitive and assertive.

in the active form, e. g. from *maitetu*, "to love" is formed *maitetuten dot*, the auxiliary, *dot*, being composed of 3 words or fragments of words, *d* the 3rd person singular objective, "him" &c.; *o* the auxiliary verb substantive in an elliptic form; and *t* the 1st person singular agentive. The meaning therefore is literally "loving him-have-(or am)-I" i. e. "I love him." In the 2nd the participle and the auxiliary are in the passive form *maitetuba naz* "loved I-am." In the 3d the participle is active and the auxiliary passive,—*maitetuten naz* "loving I-am" i. e. myself, the 1st person singular objective being understood. In the 4th the participle is passive and the auxiliary active,—*maitetuba dot*, "loved him-have-I" i. e. "he is beloved by me." The other four genera are called recipient, because they involve a third person with reference to whom the action &c. is performed, i. e. he and not the agent receives the resulting benefit or the reverse. They are the same as the previous four, with the addition of a dative pronoun representing the recipient person, the verb substantive also taking a recipient postfix. Thus *maitetuten* or *maitetuba deusut* (analytically *d-eu-ts-u-t*, that is *d*, the 3rd person singular objective, *eu* the auxiliary, *ts* the recipient formative, *u* the 2nd person singular dative, representing the person to whose advantage or injury the act is done or emotion felt, *t* the 1st person singular agentive). A similar form is found in the relative or objective formative of Scythic in most of the African, and in some other formations, but I am not aware that an agentive, objective and dative pronoun are agglutinated in any other language save that on the opposite side of the Mediterranean, the Berber. The pronominal forms have various refinements and complications. The 2nd person has three forms in the singular, depending on the rank of the person addressed, the honorific, which has no gender, the masculine familiar, and the feminine familiar. Thus the root *il*, "to die, to kill," in the mixed active voice, gives, with the feminine pronoun, *il don*. In the auxiliary, *d* is the third person objective equivalent to "him," *o* is the verb substantive and *n* is the 2nd person vocative feminine. The agentive 3rd person is inherent or understood, as in some other formations, Semitic, some of the Asonesian &c.* The so-

* In the plural an additional objective particle *z* is used in the 2nd and 3rd persons; the 1st person plural changing *n* to *g*. It follows the verb absolute. When

called verb after being modified by the composite auxiliary, in any of its multiplied forms, may again be made participial by postfixing *n* (possessive, dative).

By its agglutinative and elliptic phonology Euskarian associates itself with African, Caucasian and American and also with Semitic and Iranian. Its agglomerative and harmonic tendency is South and Mid African, Scythico-Dravirian and American, not Semitic. Its mode of combining the pronoun with the verb substantive is African, Semitic, Draviro-Australian and American. Its postpositional habit is Scythic, Caucasian, Scythico-Iranian and American and not Semitic or prevalent African. The great use it makes of the verb absolute is not Semitic, Scythic, or American but African and Iranian. The elaboration of its pronominal verb system resembles the American more than any other formation extant, but the American systems are still more elaborate, and each formation has peculiarities.

The notices by Adelung and Humboldt are too imperfect to enable us to draw any very decided conclusions respecting the ethnic relations of Euskarian. It is evidently a fragment of a very ancient formation that was diffused over southern Europe, or a large portion of it, before the older branches of the Iranian formation began to spread westward. It appears to be even more ancient than the diffusive Scythic formation. Its comparatively elaborate, refined and flexional character and its strong American and African affinities, lead us to this conclusion. Its complex affinities are inexplicable if we adhere to the notion that linguistic formations do not blend in their ideologies and phonologies as well as in their vocables. But if we recognize the fundamental fact on which all ethnology rests, that, since the human race first existed, there has been a constant succession of diffusive formations—the latest affecting all the preceding ones with which it comes in contact—the complicated analogies of the Euskarian become very instructive. Abandoning the notion that it has ex-

the vocative postfix of the 2nd person is used, *y* precedes the verb substantive. Example (*ai* euphonic) *n-at-y-o-k*. Here *n* is the 1st person. obj., *y* the vocative particle, *o* the verb subs. and *k* the masc. part. of the 2nd person indicating the sex of the person addressed. Thus *il naiyok* means "killing me-(he)-is-oh-man!" With the feminine postfix the verb would become *naiyon*. With the pronoun in the plural *g*, "us", the verb becomes *gaiyok*, *gaiyon*. Without the vocative the form is simply 1st *nau* S. *gau* Pl.; 2nd *au* (objective 2nd person understood), if honorific *zau* S. *zauz* Pl.; 3rd *au* S., *dauz* Pl. (*au*, *o*, the verb absolute or assertive).

isted in its present condition from the first, and examining it as a record of modifications which began with its very existence as a distinct dialect, the Euskarian may be made to throw much light on the ethnic history of the world. Its geographical position and its general character give us two *prima facie* conclusions. The first is that its strong Africo-Semitic affinities are the oldest, and that its character was at one time more purely Semitico-African and less Scythic than it is now. The second is that the Scythic formation, a result of the contact of Euskaro-American and Tibeto-Chinese, diffused itself from an eastern source, broke through the chain of formations that had connected the Euskarian with the Caucasian, the N. E. Asiatic and the American, and spread westward into Europe, supplanting the more ancient formation in some places, and modifying it, or being modified by it, in others. The Fin appears to be an example of Scythic slightly influenced by an older and more flexional formation, and the Euskarian is the chief remnant of those more remote and sequestered branches of the prior formation which retained their existence but were influenced by the dominant formation. The Semitico-African and special Scythic affinities of the Celtic probably belong to the Scythico-Euskarian era of Europe, and a critical examination of all the European vocabularies would no doubt lead to the detection of numerous vestiges of the more ancient formations.

The glossarial connection between Euskarian and the African languages, particularly the northern, (Berber, Egyptian, Bishari, Nubian &c) is considerable. Even the small comparative table in Prichard furnishes instances of radical agreement. Mr Newman has indeed said that "not one word in the Biscayan is like any other language in the table except *gamelua*, a camel." But in all glossarial comparisons the roots must first be freed from the definitives or other particles which are generally attached to them in the vocabularies of harmonic languages, and when this is done the affinities in the table become more numerous as well as more close. The Euskarian *bot* "one" is the Coptic *uot*, Bongo *uotu*, Kayli *noto* (connected with the Semitic *nahid* &c). *Bi*, 2, has no affinities in the table, but the root is a wide spread one in Africa. It is found in the Nigerian *biri*, *pili*, *ñli* &c, and the similar S. African *bili*, *bini*, *biri* &c. *Iru* 3, is probably derived from the Shillah *era* (Semitic). It is also a common African root, *tilu*,

tara, ru, la &c, and it is primarily a definitive used for 2. *Lau*, 4, has several African representatives. The root is the same term for 2 that is found in 3. It enters also into the Semitic 4. *Bost*, 5, is immediately connected with the N. African *sum-most* Shillah), and through it with the Berber, Amharic *au-mist* and other Semitic forms. *Sei*, 6, is the Semitic root without the definitive postf. (*sedist* Amh. *sedis* Berber, *suth* Shillah), as in Egyptian (sou.) *Zospi*, 7, (comp. *bi*, 2), appears to be the Egyptian *shashf*, *sefech*, connected with the Semitic, and resolveable into 3, 4. As the labial which represents 4 is radically 2 in many African languages as well as in Euskarian, *zos-pi* is probably also 3, 4, like the Egyptian, but if it is not a mere derivative it may be 5 + 2. *Zortzi*, 8, appears to be flexional. The initial *zo* appears to be taken from 7; *rtzi* must be the same element that appears in 9 under the form *ratz*. *Bederatz* 9 is evidently compound. The final *tz* is the N. African form of the Semitic term (*tzau* Shillah, *dza* Berber). The *beder* may be a partial reflexion of an older native system in which 9 was 1, 10, as in many of the African languages. It may be connected with *bot* 1. The *r* found both in 8 and 9 may have been an ancient prefix to *tz*. *Amar*, 10, is N. African (*mar-oo* Shillah, *mar-kum* Tibbo, *meraua* Berb). The Euskarian numerals are thus, as a whole, Semitico-Libyan, with a special leaning to Shillah and Egyptian forms. It may be supposed that the Shuluh tribes of South Morocco formerly extended to the Mediterranean and were thus the nearest of all the African nations to Spain. In like manner, prior to the intrusion of Celtic or other Indo-Germanic tribes, the Biscayan race probably extended to Gibraltar and indeed occupied all the Peninsula. Of Prichard's 26 miscellaneous Euskarian words the following have affinities with the other vocabularies comprised in his table:—Night,—Siwah, *de-guia-te*, Eusk *gai-ia* man, Berber dialects *er-ghaz*, *ar-gaz*, *er-gez*; Eusk *guiz-ua*. Camel, Coptic &c., *gamul* &c.; Eusk. *gamel-ua*. Eat, Amh. *Kama*, Eusk. *e-gon*. Come,—Tibu *eer*i, Berb. *eddu*, Tuar. *aeed*, Eusk. *e-tori*. Hot,—Copt. *ber-ber*, Eusk *ber-oa*. Cold, Tuar. *tasunti*, Eusk. *otza*.

SUPPLEMENT TO SECTIONS 2 AND 3., CHAP. V.

THE SCYTHIC DEFINITIVES, DIRECTIVES AND PRONOUNS.

THE definitives* that have a plural force are *i* or *e*; *h*, *g*; *t*, *d*, *s*, *z*, *ch*; *ri*, *ra*, *n*; *lar*, *ler*, *nar*, *ner*. All the consonants appear to be variations of one primary root, probably *t*. But, while the Manchu *ri* is referable to *si*,—the compound forms *lar*, *nar*, &c., the Japanese *ra*, the Yukahiri forms in *l*, *n*, and the doubtful Chukchi-Koriak and Kamchatkan in *r*, give rise to some question. They chiefly prevail to the eastward, and in Mongol and Turkish appear to be of later origin than the dental and guttural forms and to have been acquired in the east, for they are not found in the western Scythic languages (Ugrian, Hungarian, Fin). From the occurrence of *ri* along with *ta*, *te*, *sa*, *se*, *si*, in the Manchu system, and of *ru*, *ro*, *ri* with *se* in the N. E. group as variations of one particle, (purely pronominal though it may be in the latter), it is probable that *r* was an ancient form of *s* rather than of *d*. Its antiquity is proved by its preservation in the archaic eastern languages and in Dravido-Australian† which is connected with older forms of Scythic than the Tatar branch. The *n*, *ng* of Yeniseian, connects itself with the *l*, *n* of Yukahiri, and with *lar*, *nar* of Mongol and Turkish. The vocalic plurals *i* and *e* occur flexionally, but, in their ultimate origin, they may be contractions of *tî*, *te*, *sî*, *se* &c., and, if so, there would appear to be only one elementary plural particle in the Scythic alliance.‡ At present there are three principal ones, the dental, guttural and sibilant, widely prevalent from Bhering's Straits to Cape Comorin, and still preserving clear evidence of its unity in several languages; the liquid *r*, *l*, *n*, having a still wider but less continuous range and hence less clearly connected with the first;—lastly the vowels, diffused on all sides, but, from their very nature, uncertain in their origin and affinities.

I is used in Fin as the common plural postfix; in Hungarian, Turkish and Yukahiri as a flexional pronominal plural. In Manchu *e* is a pronominal plural flexion (sing. *i*), and in Samoiede it

* For a list of the postfixed and prefixed Definitives see Sec. 2.

† *Miri arang*, *alli*, Garo. *rang*, Bengali *era*, Dhimal *el*, *al*, Mikir *li*, S. Drav. *la*, *lu*, *mar*, *gal*, *kol*, *ngal*, *nar*, Dhim. *galai*, Australian *galang*, *ngalu*, *nga*, Aru *ra*, *rara*, Pol. *aronga*. The Scythic plural in *h*, *g*, occurs in some of these forms. It is used without *ra*, *la*, in Kol. (ko).

‡ Kellgren thinks there are two, *t* and *i*.

is a postfix. *K* is the common postf. in Hungarian and it is also found in Turkish, and the N.E. Asiatic group, including Namollo (Esquimaux). In some languages it takes the sonant form. *T* identifies with itself *d*, *s*, *z* and *ch*, and probably, also, *r* and *k*, that is all the elementary monoconsonantal plural particles. It is used in Fin in the nominative, with *i* as its following vowel, and it occurs in Manchu also (*ta, te*). It takes its sonant form (*d, od*) in Mongol. The sibilant form appears in the more eastern groups,—Mongol (*s*) and Manchu (*sa, se, si*). The sonant form of the sibilant (*z*) is found with Turkish pronouns. *S* is probably also a plural particle in the N. E. group (3rd pronoun). The simple vibratory form *ri* is found amongst the proper Tatar languages in Manchu only, associated with *si* to which it must be referred. Kellgren suggests that the elementary plural particles *i* and *t* are simply forms of the third personal pronouns *i* and *s*. The Turkish *lar, ler*, Mongol *nar, ner*, appears to be foreign to the prevalent Tatar system,* and to be a reduplication of the liquid *r*, *l, n*, which is found as a plural particle in the N. E. and in other formations (Dravirian, African, Asonesian). The Kol *nar* is identical with the Mongol *nar*.

The Scythic pronominal system is radically simple. It is not encumbered, as most mixed formations are, with more than one root for the same pronoun. But the phonetic variations of the roots give it a somewhat flexional character. The proper pronouns are *mi, bi, ma, na, bu* &c. "I"; and *si, sa, te, di, nt*, &c. "Thou." The plural is formed by the postfixes *i* or *e* (sometimes used flexionally) *k, t, d, z, lar*. Reduplicated forms of the pronouns occur. *Mi* sometimes becomes *n*, and the two forms are, in certain languages, used to distinguish the singular from the plural. These pronouns are not only found from Esquimaux to Fin, but also form the primary Indo-European system, and that of some African formations, particularly the great southern one, with its allies in the middle region. Each occurs also in other formations. Thus the labial first pronoun is found in Gond and in some Asonesian languages. The nasal, dental or sibilant second pronoun is almost universal, being found in Draviro-Australian, in most formations of the Semitico-African alliance and in Asonesian. The American systems also preserve it.

* Kellgren considers *lar* &c. to be of later origin than *t, i*.

Yeniseian has peculiar pronouns, *dy*, *ad*, *et*, "I"; *au*, *an* "thou". Their non-Scythic affinities are numerous.

The principal definitives used as the 3rd pronoun are *i*, *e*, *a*; *ta*, *t*, *sa*, *s* &c.; *ol*, *o*, *oe*. *I* is the 3rd pronoun in Manchu; in Ugrian it occurs in Mordwinian as the verbal postfix in the present tense. In Turkish it is the postfixed possessive, and as such occurs in the preterite of the definitive assertive, which is itself *i-d-i*. In Hungarian it is *e*, *i*, *a*.

In the proper Scythic languages (Tatar, Ugrian) the pronouns are postfixed possessively and assertively to themselves and to all other roots, whether such as remain substantival or such as have acquired a purely relational sense. The pronominalised roots that form the so-called verbs do not differ from the pronominalised roots forming attributive nouns. Even the verb absolute is simply a definitive or third pronoun with the possessive pronouns postfixed. In this case the definitive is evidently used as a substantive to signify existence absolutely. From the agglutinative and elliptic forms which this archaic compound assumes, it is sometimes difficult to say whether the verb-postfixes are the simple pronouns of the 3d persons or the verb absolute. In the 2d person of the Turkish verb absolute the pronoun alone and in its full separate form, is used. The definitives that serve the office of the verb absolute are *la*, *le*, *l*, *ol*, *on*, *od* or *o* in all the branches and under the form *ar* in Japanese (*ar-u* Pres. *ar-ito* Past, *ar-oo* Fut.) and *an* in Kurilian; *i* Turkish; *bi* Manchu; *vu* &c., Ugrian; *bol* Uigur (*b + ol*); *var* (with a possessive sense) Turkish. *La*, *le*, *l*, is a Fin form, but it is found also as a Turkish verb formative, *le-mek*, *la-mek*, *lan-mek* &c. In Manchu, which does not take pronominal postfixes, the verb absolute is the definitives *bi* and *o* themselves, followed by the tense and other assertive postfixes. But *bi* can be used as the present assertive without the postfix *mbi*, which is but another form of itself. The other verb absolute or definitive assertive, *o*, is evidently a remnant of the W. Tatar *od*, *o* &c. for in the future it is *od* (*od-cho-ro*.)*

The preceding remarks on the postfixing of the pronouns apply to Samoiede, which may be considered as the most easterly mem-

* The interposed *cho* corresponds with the *so* of the imperative *o-so*, and with *su* and *si* in the same tenses of the other definitive assertive. (*bi-su* Imp.; *bi-si-re* Fut.)

ber of the Ugrian branch, as Fin is the most westerly. In Yeniseian the pronoun is prefixed to words used assertively, but as this language is at once postfixal and prefixal, the pronouns, like the definitives, may prove to be capable of taking a postfixal position also.* The relation of the pronoun to the verb, or rather its application in rendering a noun assertive, in the N. E. Asian group is unknown. But from the highly agglomerative and agglutinative character of these languages, and their approximation to the adjacent American formations, it is probable that the pronoun combines with crudes possessively and assertively. In Aino this is certainly the case, for in Klaproth's Aino vocabulary *gpoky* "head-*my*" (or rather *the-head-my*) occurs.

The Scythic languages, like all or nearly all the other formative ones, preserve the power of rendering any word or particle attributive or verbal by postfixing a definitive or pronominalised definitive. In Manchu *ba* is the absolute substantive of place, and by the ordinary ideal transfer, of time also. *Bi* is one of the absolute definitives of existence (being, action), and *ako* is that of negation of existence. Hence *babi* (literally "place-*is*") "it has place"; *baako* "it has not place." The Burma-Tibetan, Dravirian, African, Asonesian and American formations have the

* In the older or purer examples of Dravirian, vestiges of a prepositional tendency are found. Thus in Sontal the possessive particle is prefixally agglutinated with the pronouns. The incorporation of the objective pronoun with the assertive is another non-Scythic remnant of the primary or proto-Dravirian formation, which being Caucaso-Australian had affinities with Caucaso-African and Caucaso-American. The eastern line of diffusion has been broken by the expansion of Scythic, which is itself a derivative—modified and simplified—of the archaic Caucaso-American formation; but Yeniseian and the proper N. E. Asian languages preserve traits referable to it, and the phonology of some of the latter is still Caucaso-American more than Scythic. It is remarkable also that a Scythic (Turkish) dialect, the Yakuti, which has been carried far to the N. E. and must have displaced a language belonging to the N. E. group, appears to have acquired some traits that are not Scythic. The Yakuti qualifies take postfixes of case and gender (Prichard citing Erman). As I have not Erman's book before me I cannot offer any opinion as to the cause of this peculiarity. Like the non-Scythic traits of the N. E. Asian group, it may possibly be a remnant of the proto-Scythic formation that has never been lost in Yakuti. It is clear that those Scythic languages which appear to have been nearest the crude Tibeto-Chinese formations are the most simplified. Tungusian and Mongol have lost even the possessive pronominal postfixes, while the Ugro-Fin and N. E. languages are somewhat more American and African. Turkish may have been interposed in the upper basin of the Lena, between the Tungusian or Mongol and the N. E. group, before it spread to the southward and westward and the Yakuti may thus be more faithful to the mother tongue than the widely dispersed Turkish dialects from which it has long been isolated by the spread of the Tungusians to the N. W. over the ancient land of the Turkish race.

The possessive postfixing of the pronoun is preserved in Dravirian in the persons of the verbs and in the Kol postfixes to nouns of Kindred,

same power, for it can only be lost when a language has become purely flexional.

The union of the pronouns with each other in the possessive and verbs absolute, and with the plural, possessive and directive particles, is frequently of a more agglutinative character than that of the ordinary compounds of the Scythic languages, or of the same particles with nouns. Hence the pronominal system, not only in the different tongues and dialects but in the various forms assumed by each root in the same language, presents highly flexional traits. The 1st and 2nd personal pronouns and the elements of the singular and plural interchange their forms. Thus *n* is at one time the plural and at another the singular flexion of the root *m* (*mi*, *ma* &c.) "I"; while it is also found as a flexion of *s*, *t*, *d* of the 2nd person in the singular affix *n*, plural *nne* of some languages.* As a verb postfix *n* itself is sometimes found in the plural only, having disappeared in the singular. In the same way the various forms of the 2nd pronoun are applied flexionally, *t* of the singular, for example, sometimes taking the sonant form *d* in the plural, and *s* of the singular becoming *t* in the plural. So also the finals *i*, *e*, are properly two forms of the same plural particle, but in some cases *i* is singular and *e* plural, and in others *e* is singular and *i* plural. These, like other postfixual vowels, as those of the 3rd pronoun (*e*, *i*, *a*), are liable to change with the vowel of the principal word. The Indo-European flexion system abounds in similar instances of irregularity, owing to the phonetic mutations and consequent confusion of different elementary particles, and to the various forms having each, in the growth of the system, acquired independent offices or applications, varying, however, not only with the language but with the position in which the particle is found. The explanation is the same in both formations. The sense of the glossarial unity of the particle in its different phonetic forms has been lost, so that each form has become a separate particle or flexion. Another flexional trait in the Scythic pronouns is the reduplication in some of the plurals.

* But the postfixual *n* form of the 2nd person is, in some cases at least, a reflexion of the possessive postfix of the full separate form, as in the Turkish. Thus the *un* in *babun* "father-his" is the possessive *un* of the full prefixed form *senun babun*, "he-of father-his," literally "father-of." The 2nd personal affix of the verb is consequently a pure possessive particle also. Similar phenomena are common in agglutinative and flexional formations. See the remarks that follow the examples in the text.

As in Indo-European, Dravidian, Semitico-African, Asonesian and American systems, the pronominal roots in some languages have definitives annexed. Thus Turkish postfixes *n*, Ugrian (Fin to Samoiede) *n*, *na*; and, in the allied N.E. group, Chukchi-Koriak and Eskimaux prefix *go*, *ky*, *nga*, Japanese postfixes *ga* and Aino postfixes *ny* (Scythic). Korean, Tungusian, Mongol, Yeniseian and Hungarian do not annex definitives. In some of the most archaic languages the system has reduplicated and compound definitive postfixes (Ostiak *tyot*, Yukahiri *tak*, Japan *taku-si*, American *take*, *gage*, *kuk* &c.)

The formatives have the same strongly objective action as in other crude formations. When affixed to a root, they lose their abstractly relational force, and become descriptive of some specific object, action or mode of action.* Thus in Fin *see* the intensive, *taa* the causative, passive, transitive and intensitive, *hta* the momentaneous, *ele* the diminutive and frequentative, *te-le* the diminutive with an ironical sense, *ta-i-see* the momentaneous and intensive, when postfixed to *jyra*, "to thunder," do not generally or abstractly denote thunder that is intense, frequent, produced &c. *Jyrayaa* signifies that it thunders constantly and gently; *jyrisee* constantly and strongly; *jyrahtaa*, with a strong but single crash; *jyraelee* gently and repeatedly; *jyrahtelee*, strongly and repeatedly; *jyrahtoissee*, with a single very strong crash, followed by many still stronger. The same high objective power and the same fertile glossology are manifested in the minute observation and discrimination of most material things and appearances.†

The principal definitives that have received possessive, directive and assertive powers are *ni*, *de*, *la*, *ka*, *sa*, *be*, with their phonetic variations.

Each of the more generic directives has several secondary applications even in the same language, as in the Burma-Tibetan system, and the generic attributive force to which this is owing has also led to the principal office of the same particle differing on different languages. Thus in Manchu the possessive *i* (*ni*) may also be used with the significations "by" and "with" (Instrumental), while in Mongol and Turkish it is the objective as well

* See the remarks on the Philippine formatives (part i, chap. iii. Sec. 1st, vii.)

† See the remarks on this subject in the subsequent section on the American languages with reference to American, Scythic, African and Asonesian, in a word, to all formations in which a high abstract power has not been developed.

as a possessive. *T, d* is Dative in Manchu and Mongol, Ablative in Turkish and Objective in Hungarian. All other formations consisting of many languages and dialects present similar diversities in the applications of the definitives, directives, formatives and other particles of the primary system. When we do not recognize the generic ideas of attribution or possession, relative place &c., that are common to all the directives and thus admit of one of them replacing another, we are apt to overlook the real connection between the postpositions of a group of languages like the Scythic, and on a first inspection to pronounce that there is little or no agreement save in the possessives. That such an opinion is erroneous will appear from the following list, if read with due attention to the fact that in each language the directives have secondary as well as principal applications.* The comparison of single directives in different alliances loses much of its ethnic value from the fact that the elementary directives,—like the definitives with which they are primarily identical,—embrace the entire circuit of consonants, and are largely commutable, both phonetically and ideologically, in the various languages and dialects of every formation. It is only a comparison of systems of directives that can lead to important results, and even these in general yield analogies too large to be historically available. My remarks on the foreign affinities of the Scythic particles shall therefore be very brief.

Ni, sometimes *e, u, i*, is possessive in all the branches of the Scythic family. Manchu *ni, i; ngge*; Mongol *un, u, yin* (with the 1st and 2nd pronouns, *ni*); Turkish *ning* (Uig.), *ung, nung, n̄g*; Ugro-Fin *n, en, e* (Hung.), *nek* (Hung.) *Ni, i, yi*, is also the objective in Turkish (Uig. *ni*, Osm. *i, yi*) and Mongol (*i, yi, ji, giyi*). In Fin the same element forms the Essive (*na*), Adessive (*lla* for *n-la*), Illative (*un*) and enters into the Adverbial *i-n* (*i* is plural here), Comitative *ne-nsa*, and Allative *ll-en*. In Hungarian, with *k* postfixed, it forms the Dative, *nek*, which is also possessive.

The same particle is possessive in most other formations of the Old World, under the forms *ni, in, yin, i, na, la, &c.* and the reduplications *nin, nen, nan, nun, nang &c.* [See Philippine,

* See the previous remarks on *N*, Indonesian, Dravirian, Tibetan &c.

Tibetan, Dravirian, Indo-European, Semitico-African]. The Scythic forms *nī*, *in*, *yīn*, *i*, *an* &c., *nīn*, *nun* &c., are Dravirian also. [See Chap. IV. §. 6]. They are found in the Northern languages of India, in Bodo, Garo, Singpho &c.

The application of the possessive particle to indicate other relations besides the purely possessive is common to Scythic with all the formations in the world. In many it is also combined or compounded with other particles in the Objective, Dative, Instrumental &c. In some languages it is a generic or universal attributive or connective, and may be used to supply the place of more specific relational directives and formatives. [See Philippine, Burma-Tibetan, Dravirian, Indo-European, Semitico-African].

De, *te* primarily indicates motion towards an object. In Manchu it is Dative (*de*, euph. *nde*); in Mongol Dat. (*du*, *tu*, *tur*, *dor*); in Turkish (with the nasal def. postf.) Ablative (*den*, *ten*); in Samoiede Ablative (*ta*, *da*, *to*, *do*,) and Elative (*d*); in Hungarian, Objective (*et*, *at*, *t*); in Fin Caritive (*tta*) and an element in the Elative (*s-ta*), Ablative (*l-ta*), Prosecutive (*t-se*). The dental directive is Locative in Manchu (*da*) and Turkish *da*, *de*, *nda*, *nde*.

The dental directive is found in most formations, and in many with a Dative or with a generically Transitive force. Thus in Iloko (Philippine) *ti* is Dative but also Agentive and Possessive; in Gond *t*, *tun* [Mongol *tur*] is Transitive, in Singhalese and the Marathi-Bengali languages it is Dative, Dative and Objective &c.; in Dravirian it is the most common form of the Instrumental; in Drav. *dī*, *da*, is also one of the forms of the Possessive (*nī*, *na*); it is Ablative in Bengali, Siamese, Lietti &c., Locative in Bengali, Dhimal, Asamese, Khamti, Malayu-Polynesian &c.

Lla is Affective in Fin, and it also enters into the Ablative *l-ta*, and Allative *l-en*. *Ra* is the Future assertive in Manchu.

La, *ra* is a common directive in other formations, but like *da*, *ta* it is frequently merely a form of *na*. For example, in Tibetan the Transitive and Locative postfix takes the forms *la*, *ra*, *na*, *du*, *tu*, *su*. So Kiranti *da*, Serpa *la*, Mag. *ra*, Limp. *nu*, Garo and Miri *na*, Bodo *no*, Naga *nung*. In Kasia it is Ablative *na*; in Murmi and Gurung Possessive *la*; in some Australian languages Locative &c.

In Manchu *chi* is Ablative and Conditional, and *che, cha*, Frequentative and Collective. In Fin *ssa* is Inessive and it is found in the Comitative *ne-nsa*, the Elative *s-ta*, the Prosecutive *t-se'* and the Mutative *k-si*. In Cheremiss the Mutative is *esh*, in Syr. *os*.

The Sibilant directive is common to many formations. In general it is a form of the dental (*d, t*) as in Tibetan (*su, tu, du*.)

Khe is the past assertive in Manchu (with that of the present prefixed). In the pret. indef. and def. it becomes *kha*, and in the latter postfixes *bi*, of the present. In Turkish the Dative is *ka, ga, k, h*. In Hungarian it probably appears in the Dative *nek* with the possessive pref.; and in the objective it appears to be interposed in the sonant form between the pref. and postf. pronoun, *engem, S.*, *teged Pl*. Here however, and even in *nek*, it may be merely euphonic. In Fin it is found in the Mutative *k-si*. In Mordwinian it is Adessive (*ga, ka*.)

The guttural directive appears to be immediately connected with the dental (*k, t*). It is equally prevalent and has in general the same transitive force. It is so used in Dravirian, Marathi-Bengali, Indo-European, Australian, Malayu-Polynesian, and in African formations. The monosyllabic languages also possess it (Chinese *kwo*, Anam *cho*, Siamese *ke, ka*.)

Bi, euphonically *mbi*, is the assertive of the present in Manchu. Under the form *me* euph. *a-ma, o-me, i-me, u-me*, it is the absolute assertive (Infinitive). *M* is also objective in some of the Ugrian languages. *Be* (euphonically *mbe*) is the objective in Manchu. Postfixed to the Conditional or Ablative it forms the 1st Conjunctive, the 2nd flexionally changing *be* to *me*. *Me* is also the infinitive or noun-assertive postfix. *Va* is Adessive in Mordwinian. *Fi* is participial and *bu* is passive in Manchu.

The labial particle is very widely diffused, but as a definitive and assertive (Burma-Tibetan, Indo-European, Caucasian, African, Asonesian) more than as a directive, unless its tense and other formative applications be considered as primarily directive. They appear, however, to have originated in its assertive use. *M* is objective in Caucasian, Indo-European, Dravirian, and (under the form *fe*) Singpho.

The Scythic formative system connects itself more immediately with the Dravirian; but the same system is found, with some-

what greater deviations, in many other formations, as Indo-European, African and Asonesian.

The substantival character of the Scythic definitives, directives, adverbs and other postpositions, and of the particles, generally, is proved by their taking possessive postfixes, or being governed by other words which do. Thus in Manchu the postposition *dorgi* corresponds with our preposition "in," but that it is a substantive equivalent to "interior," "inside" &c. appears from its being governed by words in the possessive. *Mederi dorgi*, "in the sea," is literally "sea-of-interior." *Terei dorgi* "in that" literally "that-of interior." *Tere* itself is highly compound for it contains 3 distinct elements,— *re* a singular definitive postfix (plural *se* in *tese* "those") occurring also in *ere* this; *e* the general definitive; *t*, a second definitive prefixed to *e* to render it remote.

Illustrations.

I add some illustrations of the character of the Scythic postfixes and flexions.

PRONOMINAL AND SUBSTANTIVAL.

1. *Manchu*.

1st. Personal Pronoun.

	Sing.	Plur.
Nom.	<i>bi</i>	<i>be</i>
Poss.	<i>mini</i>	<i>meni</i>
Dat.	<i>minde</i>	<i>mende</i>
Obj.	<i>mimbe</i>	<i>membe</i>
Abl.	<i>minchi</i>	<i>menchi</i> .

The forms *bi*, Sing., *be* pl., are highly flexional; but *e* can be traced to its origin in the common Scythic plural particle *e*, *i*. Samoide man, "I," man-*ye* "we"; pydyr "thou," pydyr-*e* "you"; Fin ma "I", me "We" (as in Manchu); Lap. mo-*n* "I", *mi*, *mi-ge* (double pl. postf.) "you"; Hung. en "I", *mi*, or *m-i-yuh* (double pl. postf. as in Lep.) "you."

2nd. Personal Pronoun.

Nom.	<i>si</i>	<i>sue</i>
Poss.	<i>siri</i>	<i>sueni</i>
Dat.	<i>sinde</i>	<i>suende</i>
Obj.	<i>simbe</i>	<i>suembe</i>
Abl.	<i>sinchi</i>	<i>suenchi</i>

3rd. Pronoun.

	Sing.	Plur.
N.	i	che
P.	ini	cheni
D.	inde	chende
O.	imbe	chembe
Ab.	inchi	chenchi.

Manchu has an inclusive form of the 1st person plural, *be* being exclusive of the persons addressed, or relative. The absolute or inclusive form is *muse*, which is obviously an agglutinated and euphonic compound of "We" and "you," *be-sue* or *me-sue* transformed to *muse* by elision of the first *e* and transposition of *u*.*

In Manchu the possessive forms of the pronouns are simply preplaced, e. g. *mini ama* "my father." The possessives and qualitative postfix *ngga*, *ngge*, *nggo*, forms separate possessives, e. g. *miningge* "mine," being in fact a reduplicated possessive.

From the want of agglutination in Manchu the postfixes are the same with substantives as with pronouns. The directives are not limited to those given in the preceding examples, as the various postpositions have several of the offices of the numerous directives of the Ugro-Fin branch. The four most generic postpositions have each several applications.

Substantives.

Nom. *dchaka*; Poss. *dchakai* [from *ni*]; *D.* *dchakade*; *O.* *dchaka be*; *A.* *dchaka chi*.

In the plural animate are distinguished from inanimate things as in many other formations (Dravirian, Ultraindian, African, American), the plural of living beings only being glossarially indicated. The plural postfixes are *sa*, *se*, *si*; *ta*, *te*; *ri*.

N.	chabi-sa
P.	chabisai
D.	chabisa de
O.	chabisa be
Ab.	chabisa chi

2. *Mongol.*

In Mongol the pronouns are 1st S. *bi*, Pl. *bida*; 2nd, S. *tsi*, Pl. *S. ta*; 3rd, S. *e-gun*, Pl. *e-de*. Before all the postfixes save the Nominative and Possessive *bi* becomes *na*.

* This analysis I prefer to Prichard's in "Researches" iv. 391.

The Possessive postf. is *yin*, *un*, *u* with substantives, and *nu* with pronouns,—*minu*, *tsinu*, *egunu*. The Poss. Plur. of the 2nd person has also *nu* (*tanu*). The Dat. is *yar* and *tur*; with the 1st and 2nd pronouns *da*, *du*; with the 3rd *dor* (Kalmuk *du*, *tu*). The Obj. is *i* (*ji*, *yi*, *giyi* after a vowel) which is also Turkish. The Abl. is *echa*, *etse*, Kalm. *edse* (Manch. *tsi*). The common Sing. postf. is *n* and the plural *da*, *d*. Words ending in a vowel take *nar*, *ner* in the plural.

The Dative (properly Locative) Postf. *da* is an element in some other cases as *na-da-ber*, *na-da-luga* *na-da-etse*. In the Objective *ma* is used and the same definitive occurs in all the "cases" of the 2nd person singular. It is evidently a form of the singular definitive *na*, *n*, in analogy with the Fin *si-na*,* and as the other Plur. in the Nom. as well as in the other cases, (*ta*) is formed flexionally from *na* by the substitution of the Plur. pref., it is clear that *na* is simply the singular definitive postfix, which in Mongol is much used in the nasal form (*n*, *na*) with substantives. *Na* of the oblique cases of the 1st person is therefore a contraction of of *bi-na* or *mi-na*, (Fin *mi-na*; Turk. *be-n*, *ma-n*; Fin. Poss. *mi-n-un*) and *ta* of *tsi-ta* (Fin *si-na* Sing.) In the Pl. of the 1st person it is preserved (*bi-da*).

The Manchu and Mongol *bi*, *mi*, "I," *si*, "thou," are identical with the Fin *mi*, *si* and the Manchu *be*, *me*, "we," with the Fin *me* "we." In Turkish and Hungarian the *i* forms are confined to the Plur. and *e* ones to the Sing. which is the reverse of the Fin, Manchu and Mongol system. Samoiede has *e* as a plural postf. It may be concluded that *e* is the original Scythic vowel of the Plur. and *i* of the Sing., and this is confirmed by the Indo-European forms.

* Schott considers *ma* to signify "self," while Kellgren thinks that *ma*, *na* are simply the 1st personal pronoun, and explains the presence of *ma* in the 2d person by translating it "thou-I," thus treating "thou" as a second "I." Schott's explanation is nearer the analysis in the text, because the postfixed definitive has necessarily an emphatic and individualising force, whether used with nouns or pronouns. In the American and African systems there is much interchange between the roots of the 1st and 2nd persons depending on different causes, such as the substitution of a definitive for a root, the formation of the plural of the 1st person from the roots "I and thou or you," the substitution of the Pl. for the Sing. form and the occasional loss of the 1st element, thus leaving the remnant "Thou" or "you" to stand by itself for "We" or "I."

3. *Turkish.*

Pronouns.

I.

Sing.	Pl.
N. <i>ben</i>	<i>biz, bizler</i>
P. <i>benum</i>	<i>bizum, bizlerum</i>
D. <i>bangā</i>	<i>bizeh, bizlereh</i>
O. <i>beni</i>	<i>bizi, bizleri</i>
Ab. <i>ben-den</i>	<i>biz, bizlerden</i>

Uigur.

Sing.	Plur.
N. <i>men</i>	<i>biz</i>
P. <i>mining</i>	<i>bizning</i>
D. <i>mangā</i>	<i>bizga</i>
O. <i>meni</i>	<i>bizni</i>
Ab. <i>mendin</i>	<i>bizdin</i>

THOU.

Sing.	Pl.
N. <i>sen</i>	<i>siz, sizler</i>
P. <i>senum</i>	<i>sizum</i>
D. <i>sangā</i>	<i>sizeh</i>
O. <i>seni</i>	<i>sizi</i>
Ab. <i>senden</i>	<i>sizden</i>

HE, SHE.

Sing.	Plur.
N. <i>ol, o</i>	<i>anlar</i>
P. <i>anun, onun, ona &c.</i>	<i>anlarun</i>
D. <i>anğa</i>	<i>anlarah</i>
O. <i>ani</i>	<i>anlari</i>
Ab. <i>andan</i>	<i>anlardan</i>

In this system we remark the following phenomena. The 1st and 2nd persons take the common Scythic definitive postfix *n*, radically identical with the 3rd pronoun, and this has a Singular force. The Poss. *un* becomes *um* in the 1st person, through the euphonic influence of the pronoun *b*. The Dat. Sing. does not merely assume the common Dat. postf. *ga, ka, k, eh, &c* but agglutinates it with the pronoun, the *g* of the postfix combining with the *n* of the pronoun *nġ*, and its vowel—contrary to the general law—assimilating that of the pronoun (i. e. *ben-ga* has become

ban̄ga). In Uigur the consonants are not changed, but *men-ga* has become *man-ga*. So in the Poss. *m̄e-ning* has become *m̄i-ning*, from the influence of the vowel of the postfix. The Plural particle *iz* displaces the definitive of the Singular, and may take a further plural postfix *ler*.* From this it may be inferred that *iz* is the more archaic Turkish plural particle, and that it has acquired a concreted or flexional character. *Ler, ner*, it may be observed, is confined to Turkish and Mongol, while *iz* is a sibilant form of the common Scythic dental and guttural plural def. *d, t; k* (Manchu *te, se, si, ri*).

Examples of Pronouns postfixed possessively to nouns.

babam, or *tenum babam*, my father.

baban or *senun babun*, thy father.

babasi or *anun babasi*, his father.

The Plurals are formed by *ler*, as *babalerum* "my fathers," *babaler-un-un*, "of thy fathers."

Verb absolute.

Present.

S. 1. <i>im</i> , <i>in</i>	Pl. 1. <i>iz</i>
2. <i>sen</i>	2. <i>siz</i> , <i>siniz</i>
3. <i>dur</i>	3. <i>durler</i> , <i>lerdur</i> , <i>an lar dur</i>

1st Preterite.

S. 1. <i>idum</i> , <i>dum</i>	P. 1. <i>iduk</i>
2. <i>idun</i>	2. <i>idunuz</i>
3. <i>idi</i>	3. <i>idiler</i> , <i>leridi</i>

The assertive definitive *i* is a 3rd pronoun or definitive (Manchu *i*, "he" &c). The 2nd person is the naked second pronoun in its full form and without any definitive prefixed. In one of the forms of the plural *s-in-iz* the def. postfix of the singular, *n*, is preserved, which is not the case with the separate pronoun. The 3rd person, *-dur* appears to be a reduplicated form (in analogy with the plural *ler, ner*) of the dental definitive common to Scythic and Dravirian (*adu*) with other formations, and similar to the compound forms of Yukakiri (*tun-dal*), Aino (*tana tada*), Namollo (*tana*), Changlo (*dan*), Gurung (*thila*), Burman (*dehu*), Asonesian (*tana, tane, tena* &c), Sanskrit (*etad*) &c. &c. One of the plurals *an-lar-dur*, has the 3rd pronoun *an* as pref. and *dur*

* In the Manchu demonstrative are "this" *ese* "those," the Sing. and Pl. post-fixes *re, see* are similar to the Turkish *en, iz*.

as postf. to the plural particle. In the 3rd person of the Pret. *i* itself replaces *dur* as the possessive (*i-d-i*).

In Turkish the more generic directives are Poss. *ung, nung*, (Uigur &c *ning*) ; Dat. *eh, yeh* (Uig. *ga, ghah*, which is also found in the Turkish pronominal system) ; Obj. *i, gi* (Uig. *ni*) ; Abl. *den, ten*.

	Sing.	Plur.
N. at "a horse"		<i>atler</i>
P. <i>atung</i>		<i>atlerung</i>
D. <i>ateh</i>		<i>atlereh</i>
Obj. <i>ati</i>		<i>atleri</i>
Abl. <i>atten</i>		<i>atlerden</i> .

4. (A.) *Ugro-Fin.*

The Finish pronouns are

	1st	2nd	3rd
Sep. Nom. <i>mina</i> S., men Pl. <i>sina</i> S., te P. <i>han</i> S., he P. son (Mord.)			
Sep. { Oblique } <i>minu, me-i, sinu</i>			<i>hane</i>
{ cases }			
Postf. ni S., <i>nme</i> P. si S., <i>nne</i> P. nsa			
			<i>zo, nzo</i> (Mord.)

In some Ugro-Fin languages and dialects *mi, si* become *ma, mo, ta, to*. These broad forms must be very archaic, for they are found in the Samoiede (*man, sanu*) ; at the E. extremity of Asia in Yukahiri (*ma-tak* "I," *ta-t* "thou,") in Chuckchi-Kamchatkan *goma, kymma, buse muri* &c. 1st Pers., *tu* &c. 2nd Pers.; in Japanese *wa-taks, wa-ga, wa-re* "I", *anata, sonata* "Thou," in Esquimaux (*wanga, wu* "I") and in Indo-European. The Yukahiri postf. in *ma-tak, ta-t* and the Japanese in *wa-tak-usi* resemble the Ostiak in *ma-tyot* "I" and some American pronominal postfixes. This is but one amongst many special traits that connect the Ostiak and the other Ugrian dialects most closely resembling it with the N. E. Asian and with American languages, and give it a claim to be considered as preserving a greater fidelity to the primary Scythico-American type than the other Ugrian or the Tatar languages. The vowels of the Fin, Mongol and Manchu are probably more modern and are consistent with an extension of the Ugrian dialect in which they originated to the west and east after the primary Ugrian form

had spread to the extreme E. and in all likelihood over the whole Scythic-Arian region. But similar forms are found in America. In the Plural the Singular postf. *na* is replaced by *i*. In the demonstrative *ta-ma* becomes *na-ma* in the Plural.

VERB ABSOLUTE.

Fin.

Present (root the Definitive *ol, on*)

S. 1. <i>ol-e-n</i>	Pl. 1. <i>olemme, ol-e-mme</i>
2. <i>ol-e-t</i>	2. <i>olette, ol-e-tte</i>
3. <i>on</i>	3. <i>ovat, o-wa</i>

The Preterite changes *e* to *i* (*ol-i-n* &c.) The 3rd person singular has *-aa* with active verbs.

Lapp. (root the same Definitive under the form *le, la*)

Present.

S. 1. <i>lem</i> or <i>leb</i>	D. 1. <i>ladne</i> or <i>len</i>	P. 1. <i>lep</i> or <i>lepe</i>
2. <i>lek</i> or <i>leh</i>	2. <i>lappe</i> or <i>lepen</i>	2. <i>lepped</i> or <i>lepet</i>
3. <i>la</i>	3. <i>laba</i> or <i>lepe</i>	3. <i>lak</i> or <i>lah.</i>

The first person has a purely phonetic flexion to indicate the dual and plural, *m* (or *b* as in Turkish, Mongol and Manchu) becoming *n* in the dual (as in the singular of other Scythic languages which have *m* in the plural) and *p* in the plural, but the latter may be a plural particle. The 2nd person shows a similar flexion in *k* (or *h*) of the singular and *d* of the plural (the same pronoun taking the forms *n*, *t* and *s* also in other Scythic languages). The dual and plural element *pe, ba* occurs also in the plural of the 3rd personal affix of Fin, *awad*, "they," (Sing. *-aa*), in the 2nd person of Manchu *sue* or *surve* "you" (Sing. *si*, but the *w* of the Fin may be the labial 3rd pronoun of the singular *pi* (*wi*) and the *u* of Manchu may be merely euphonic). Samoiede like Fin has a labial in the plural of the 1st person as well as in the 3rd (*-au, -wo* 1st; *-ny, 3rd*).

Votiah. (Verb Absolute)

S. 1. <i>mon vu-i</i>	P. 1. <i>mi vu-i-mi</i>
2. <i>ton vu-i-d</i>	2. <i>ti vu-i-di</i>
3. <i>szo vu-i-k</i>	3. <i>szoyosz vu-i-hi</i>

Fin Substantive Postfixes.

Nom.	karhu ("a bear")
Poss.	karhun
Ess.	karhuna
Part.	karhua
Carit.	karhutta or a'
Illar.	karhuun
Comit.	karhu-ne-na
Adverb.	karhu-i-n (i plural postf.)
Iness.	karhu-ssa
Elat.	karhu-s-ta
Adess.	karhu-lla
Abl.	karhu-l-ta
Allat.	karhu-ll-en
Prosec.	karhu-t-se
Mut.	karhu-k-si

(B.) Hungarian.

Pronoun.

	1st	2nd	3rd
Sing.			
Nom. en		te	o
Poss. en-yé-m		ti-é-d	ov-e
Dat. nek-em		nek-ed	nek-i
Obj. en-g-em-et		te-g-ed-et	o-t-et
en-g-en		te-g-ed	o-t
Pl.			
Nom. m-i		t-i	
Poss. m-i-e-n-k		t-i-e-te-k	o-k
Dat. nek-un-k		nek-te-k	ov-e-k
Obj. m-i-n-k-et		t-i-te-k-et	nek-i-k
benn-un-k-et		benneete-k-et	o-k-et

In this system the 1st person has lost the pronominal root in the Nom. singular and in the first term in the compound Poss. and Obj.,—the definitive postfix with the vowel of the singular, *e-n*, representing the root. Comp. Turk. *ben*. In the Pl. the pronominal element *m*, is retained. The *e* in the Sing. *en*, *ben*, *em*; *te*, *ed* and the *i* of the Plural connects the Hungarian forms with the Turkish. Manchu reverses this, while Fin. has *a* in the Sing. and *e* in the Pl. The reduplication of the pronominal element

with the use of the two plural postfixes *i* and *k*, in the Poss. and Obj. of the 1st and 2nd pronouns are remarkable features. The Poss. *en-ye-m* is literally "I-of-I," or rather "I-of-my," the pronominal postfix *m* being possessive by position, as with nouns. The original form must have been *men-ye-m*, *m* being an echo of the prefixed pronoun and the possessive particle *e*, euphonically *ye*, having a substantival character. In the 2nd person the pronominal root is preserved *ti-e-d* "Thou-of-thy." In the Obj. *eng-em-et*, *teg-ed-et* the echo follows the pronoun without the interposition of the directive, the guttural being euphonic. The plurals are flexional and complex, from containing not only a reduplication of the pronominal root phonetically varied by two distinct plural elements, the vowel flexion *i* (in place of the Sing. *e*) and the postfix *k*, the latter being obviously less archaic than the former. The Poss. *m-i-e-n-k*, consists of 1st *m* the pron. root, 2nd *i* the Pl. vowel, 3rd *e* the Poss., 4th *n*, the pron. root nasalised by—4th the Pl. postf. *k*. *M-i-e-n* might be considered to be simply the full plural form *min* (*n* definitive or possessive with the poss. particle *e* euphonically infixes), but *n* is a Sing. not a Plural def. and the Sing. *en-ye-m*, of the 1st Pers. with the Pl. *ti-e-te-k* of the 2nd prove *n* to be the pronominal root. *M-i-e-n-k* is therefore literally I-(pl.)-of-I-(pl.), i. e. "we-of-we" or "we-of-our." With substantives the nominative precedes or is dropped, as in *mi atya-n-k* "we father-our," or *atya-n-k*, "father-our." In actual use the same pleonasm takes place in the Dative 1st *en nehem* "I to-me," 2nd *te neked* "thou to-thee" i. e. to me, to thee. In the objective the reduplicated pronoun with its plural vowel and plural postf. *m-i-n-k* is followed by the directive *et*. So in the 2nd person *titek-et*. It may be inferred that the Poss., Obj., and Dat. particles are radically substantival, for in the idioms *mi-e-nk* "our" and *mi-atya-nk* "our father" *e* and *atya* stand in the same grammatical category.

It will be observed that the Dat. particle is prefixed and not postfixed as in the other Scythic languages and as with substantives in Hungarian itself. Other directives, postpositional according to the Scythic usage, are also prefixed to the Hungarian pronouns, as *benn-em*, *benn-ed*, *benn-e* "in me," "in thee," "in him"; *nal-am*, *nal-ad*, *nal-a* "by me &c." This, with the preplacing of the definitive *a'* or *ak* and other traits, connect Hungarian with

the N.E. Asiatic family. Like some of the other Ugrian tongues, it has not been so completely Scythicised as the rest of the Scythic languages, or rather, it has departed less from the archaic Scythico-American type. The pleonastic or reflective tendency found in the above reduplications is also shewn in the repetition of the directive after both the demonstrative and noun.

S.

Nom. *ek a'haz* this house (*a'* the def.)

Poss. *ez-e a'haz-e* of this house (this of house-*of*.)

Dat. *e-nnek a'haz-nak*.

Obj. *ez-t a'haz-at*.

P.

N. *ez-ek a'haz-ak*.

P. *ez-ek-e a'haz-ak-e*.

D. *ez-ek-nek a'haz-ak-nak*.

O. *ez-ek-et a'haz-a*

So *azatya-nak haz-a* "the father's house" (the house-of father-*his*); *az-aty-a-k-nak haz-a*, "the fathers-of house-*his*" i. e. "the house of the fathers."

Substantive with pron. poss. postf.

Sing.

- | | |
|-----------------------------------|---------------------------|
| I. <i>szemem</i> my eye | <i>szem-eim</i> my eyes |
| <i>szemed</i> thy eye | <i>szem-eid</i> |
| <i>szeme</i> his eye | <i>szem-ei</i> |
| II. <i>szem-nu-k</i> our eye..... | <i>szem-eink</i> our eyes |
| <i>szem-et-ek</i> your eye | <i>szem-ei-tek</i> |
| <i>szem-e-k</i> their eye..... | <i>szem-e-i-k</i> |

It will be remarked that the two plural particles *i*, and *k* are combined with the pronoun, and that all the three elements are reduced to single sounds in *c-i-n-k*, *e-i-t-ek* and *e-i-k*

Sing.

Pl.

- | | |
|----------------------------|--------------------------|
| <i>szam</i> my dog | <i>szanh</i> , our dog |
| <i>szad</i> thy dog | <i>szatoh</i> , your dog |
| <i>szaya</i> his dog | <i>szatoh</i> their dog |

These suffixal possessive forms are also the suffixes of the verb.

- | | |
|--------------------------|----------------------|
| S. 1. <i>varom</i> | P. 1. <i>vat-yuk</i> |
| 2. <i>varod</i> | 2. <i>var-ya-toh</i> |
| 3. <i>varya</i> | 3. <i>yah</i> |

S. 1. <i>kerem</i>	P. 1. <i>keryuk</i>
2. <i>kered</i>	2. <i>keritek</i>
3. <i>keri</i>	3. <i>kerik</i>

The postfixed directives are very numerous. The following is an example of the use of the more generic of them with substantives.

	Sing.	Pl.
Nom.	<i>a'szem</i> the eye	<i>a'szem-ek</i>
Poss.	<i>a'szeme'</i>	<i>a'szem-ek-e</i>
	<i>a'szem-nek</i>	<i>a'szem-ek-nek</i>
Dat.	<i>a'szem-nek</i>	<i>a'szem-ek-nek</i>
Obj.	<i>a'szem-et</i>	<i>a'seme-k-et</i>

4 (C.) *Samoiede.*

Pronouns.

	1st	2d	3d
Nom.	<i>man</i> S., <i>man-ye</i> P.	<i>pydyr</i> , <i>pider</i> , S. <i>pydyre</i> P.	<i>pydy</i> <i>pydo</i> <i>pyda</i> <i>ga</i>
Poss.	<i>mana</i> S., P. <i>mani</i>	<i>sanu</i> S. <i>sennei</i> <i>pider</i> , <i>syennana</i>	
Dat.	<i>mannan</i> <i>manyen</i>	<i>sid</i> , <i>sit</i>	
Obj.	<i>sym</i> , <i>syw</i> , <i>syb</i> S. <i>sid</i> , <i>sit</i> <i>mani</i> P.		
Abl.	<i>mande</i> ?		
Verb Postf.	<i>m</i> S., <i>au</i> , <i>wo</i> P.	<i>n</i> S. <i>gada</i> P. <i>e</i> , <i>ye</i> , <i>y</i> , <i>l</i> <i>o</i> , <i>a</i> . S. <i>wy</i> . P. S. (Pret.)	

The forms 1st *ma-n*, 2nd *sa-nu* belong to the archaic Scythic system (Yukahiri 1st *ma-tak*, 2d *ta-t*; Ostiak 1st *ma-tyot*), as do also the definitive postfix *n* and the plural *e*, *ye*. The Objective 1st *sym*, *syw*, *syb*, 2nd *sid*, *sit* presents the *m* of the 1st person under the variations *n*, and *b*, and the *s* of the 2nd person under those of *d*, *t*. The preplaced directive *si*, *sy* corresponds with the Hungarian *et*, *t*, and with the variously applied dental and sibilant directives of other Scythic languages. Another special

affinity with Hungarian is the prefixal position of *si*. In Hungarian the Dative, *nek*, is prefixed. The plural *au*, *no* of the verbal postf. form of the 1st person appears to be simply a phonetic flexion of *m* as in the Obj. of the Sing. *syn*. The pl. of the postf. form of the 2nd person *ga-da* is a remarkable form. *Da* may be the postf. of the 2nd person (*n* or *t*) in the sonant form *d* as in Hungarian (*ti-e-d* &c.), Cheremish (*da*) and Mordw. (*a-do*), while *ga* is the common plural particle. But *ga-da* re-appears as a plural postf. of the 1st person in Koriak, Kamchatkan, Namollo and Aleutian dialects under the forms *kuta* and *ganda*, so that it is probably a compound plural particle, both *ga* and *da* being Scythic plurals. In the demonstrative pronoun (*tiky*) *m* appears as the Obj. postf. (*tikym*) as with substantives in Manchu (*be*, *mbe*). In the anomalous forms *pydy-r* "thou," *pyd-y-o-a* "he &c." *pyd* appears to be a definitive. If so, the *r* of the 2nd person must be a variation of the common *d*, *t*, *s*. The *y*, *o*, *a* of the 3rd person appear separated from the prefix in the verb postf. forms. The same definitive is American (Eskimaux &c.)

The following is a list of so many of the directive postfixes of substantives as have been ascertained by Gabelentz.

Obj. *m* (Cheremis, Manchu; Cauc., Indo-Eur.)

Illat. *yan* (Fin; *un* in Syr. and Wot. it is Iness.)

Iness. *na* (Essive in Fin)

Elat. *d* (Fin *s-ta*)

Adess. *e*, *a*

Abl. *ta*, *da*, *to*, *do* (Fin *l-ta*)

Allat. *len* (Fin *ll-en*, Cher. *-lan*, Syr. Vot. *leh*).

Assertive (or Verb) Formations.

The following is an example of the Scythic verb forms from Hungarian.

Transitive	ver (root)
Trans. Caus.	ver-et
„ Freq.	ver-eg-et
„ Dimin.	ver-int
Recip.	ver-ek-e-dik
Reflex.	ver-o-dik
Reflex. Freq.	ver-g-o-dik
Trans. Pot.	ver-h-et
„ Caus. Pot.	ver-et-h-et

Trans. Dimin. Pot.....	ver-int-het
Recip. Pot.	ver-eke-dhe-tik
Reflex. Pot.	ver-o-dhe-tik
Reflex. Freq. Pot.	ver-g-o-dhe-tik

The following is an example of the tense modifications from Turkish.

Root <i>ol</i> (Eng. "am")		
Present. S. 1. Pers.	<i>ol-ur-um</i>	P. 1. <i>ol-ur-uz</i>
2d	<i>ol-ur-sen</i>	2. <i>ol-ur-si-z</i>
3d	<i>ol-ur</i>	3. <i>ol-ur-lar</i>
1st Pret. S. 1.	<i>ol-ur-id-um</i>	P. 1. <i>ol-ur-id-uk</i>
2.	<i>ol-ur-id-un</i>	2. <i>ol-ur-id-un-uz</i>
3.	<i>ol-ur-id-i</i>	3. <i>ol-ur-id-i-ler</i>

2d Pret. *ol-ur-imish-em*

3d Pret. *ol-ur-ol-d-um* (1st with redup. of root, as in Indo-Eur.)

4th or Pluperf. *ol-mich-id-um* (1st and 2d combined, with loss of Indicative particle *ur*)

Future *ol-a-im*

It will be remarked that the present takes the separate or Nominative forms of the 2nd pronoun (*se-n* S. *si-z*) while the Preterite takes the postfixual Possessive forms (*un* S. *un-uz* P.); that the present uses two plural particles and the preterite three (*uk*, *uh*, *ler-*); and that the first person plural has dropped the pronominal element.

In Turkish the causative postfix is *dur*, *ur*, *r* (sometimes reduplicated), the reciprocal *sh*, the reflexive *n*, the negative *m*, *ma* [as in Tibeto-Ultradian], the impotential *a*, *h* or *i* prefixed to the negative, the passive *il*, *n*, *l*, *nil*, the infinitive *mek*, *mak*. Thus *sev-mek* "to love" has the forms *sev-dur-mek*, *sev-ish-mek*, *sev-in-mek*, *sev-me-mek*, *sev-ish-mek*, *sev-in-mek*, and all the possible compounds as *sev-dur-me-mek*, *sev-dur-eh-mek*, *sev-dur-il-mek*, *sev-dur-il-me-mek*, *sev-dur-il-eh-me-mek*, *sev-il-dur-me-mek*; *sev-il-dur-eh-me-mek*; *sev-ish-me-mek*, *sev-ish-eh-me-mek*, *sev-ish-il-mek*, *sev-ish-il-me-mek*, *sev-ish-il-eh-me-mek*, *sev-ish-dur-mek*, &c. [Comp. Tibeto-Ultr., Dravido-Austral., Euskar., African, Malagasi, Malayu-Polynesian in Philippine, and Indo-Eur.]

Manchu has for the reciprocal *nu*, *du*; the negative *ako*; passive (also transitive or factive, i. e. causing another to act) *bu*; the determinative (i. e. doing the act ones-self) *cha*, *che*, *cho*; the

frequentative, collective or associative *cha, che*; the two inchoactives *na, ne, no* and *chi*, the 1st signifying to *go*, and the 2nd to *come*, to do any thing; the infinitive *eme, ome* &c. (Turk. *mek*). The five postfixes *cha, che, cho; la, le, lo, da, de, do, ta, te,* to, *ra, re, ro; mi; ni-ye; ki-ya, khi-ya* are also used to modify the meaning of the root. Its tense and mood postfixes are *mbi* present; *mbi-khe* Imp.; *kha* Pret. indif.; *kha-bi* Pret. indif.; *ra* Fut.; *chi* Cond.; *chi-be-mbi-me* Conjunction; *ki* Opt.; *ngge* Qualitative; *fi* Participial. In Turkish agentive nouns are formed by the postfix *iji, ji, chi*; action names by *ich; ich; um; ieh, gu*, and by *lik, lek* following the infinitive postfix *mek, mak*; locatives and abstract names by *lih, lek*, directly annexed to the root; possessives by *lu, li*, (which also form gentilities like the corresponding Dravirian *al, an* which are also possessive); diminutives by *jik, jek, chi, or chek*; companionatives by *hem, tach* or *dach*. Qualitives are formed from action roots by the postfixes *kun, ghun, ko* and *mich*. The verb postfixes are *le-mek, la-mak, len-mek, lan-mak, lach-mak* &c. Many verbs are formed from nouns by the auxiliary verbs *it-mek, eile-mek, kil-mak*, "to do."

I add, from Japanese, another illustration of forms and tenses

Motome to acquire &c.

Indicative.

1. Pres. *motomuru* [Turk. *ru*]
2. Imp. *motomuru* or *motometa*
3. Perf. *motometa* or *motometaaru* [Turk. *id, ur-id*]
4. P. Perf. *motometa* or *motomette-atta*
5. Future *motomeo, o-zu-ru* [Turk. *o*]
6. Fut. Perf. *motomete a-ro-zu*

Optative.

1. *motome-yo-kasi* or *ganna*
- 2, 3. *o-monowo*

Conjunctive.

1. *motomuu-reba*
3. *motometa-reba*

Conditional.

1. *motome-ba*
- 3, 4. *motome-ia-raba*

Potential (same as Future.)

1. motomeo
2. motomeo-zu

Negative.

1. motome-nu
- 3, 4. motome-naunda

The Sibilant is intensive as in Fin, Tibetan &c.

The remarks in Sec. 2, on the great stability of the Scythic roots should be taken in connection with what is said respecting the prefixed and postfixed definitives. When we examine the ancient Asiatic vocables in the entire range of their diffusion, we often find a degree of variation in initial or final consonants which can hardly be accounted for by mere phonetic mutations. Roots that are uniconsonantal in some glossaries are biconsonantal in others, and the additional consonant is frequently a definitive. When it is prefixal there can in general be little doubt as to its definitive character. With respect to finals, abundant as postfixed definitives are in the Scythic languages, it must be borne in mind that even in the monosyllabic tongues while some dialects affect final vowels others prefer consonants. On every side save the Tibeto-Chinese the proper Scythic languages are bordered by formations more agglutinative than themselves, and Scythic roots are traceable in all these formations in forms which prove that many vocables that appear in the Scythic glossaries to be pure roots with two consonants, are, in reality, compounds of a definitive and a root. Some of the examples already given shew that Scythic vocables are very variable in form, although the root itself generally suffers little change. But even the root is sometimes doubtful. *Mu*, *mul*, *bul*, *mur*, *mi-mil*, *mok*, "water," evidently contain a single root *mu*, *mo*, *mi*, of which the only stable element is the labial. But the Aino *waka*, which appears to resemble *mat*, cannot be included, with certainty, in the same circle of mutations because along with it we find *wazka*, and *waz* appears to be the Ugrian *wesi*, *vis* &c., in which the sibilant and not the labial is the root. If *wazka* be an Ugrian vocable with an Aino postfix, *wak* has been received as a root into Aino and remains so when deprived of the sibilant; but *waka*, from the Scythic view, is simply an empty shell composed of two definitives, the root having fallen out. Even in Scythic the root with its definitive must

often be accepted as an integral word, because homophonic roots abound and the definitive now puts the mark of a particular meaning on each. The vowel also serves the same purpose. Thus *l* vocalised is a root signifying wind, air, sky, breath, life, spirit &c., but the slender and liquid vowel *i* distinguishes the primary from the secondary application,—*ili*, *liil*, *ilma*, *ilm*, *dil*, *til*, *sil* &c. “air”; *olo*, *alo*, *olema*, *elama*, *elanda*, *elem*, *oramo*, *olno*, *olant*, *elet*, *ulta*, “life”.

JOURNAL OF AN EXCURSION TO THE NATIVE PROVINCES ON
 JAVA IN THE YEAR 1828, DURING THE WAR WITH
 DIPO NEGORO.*

16th August, Surakarta—I mentioned on the 9th instant, that the commanding officer at Djocjokerta, Colonel C. had marched that morning early from thence, with a small party of troops, to reconnoitre in the direction of some heavy and continued firing we had heard the evening before.

To-day I saw a copy of the Colonel's report, sent in on his return to Djocjokerta, dated the 12th instant, and addressed to His Excellency General DeKock, Lieutenant Governor-General and Commander of the forces.

From this report it appears that Colonel Cochius had sent orders during the night to Lieutenant Colonel Sollewyn and another of his subordinate officers, commanding detached parties of troops at different points in the neighbourhood of Djocjokerta, to advance in a similar direction, and join him at two given localities as soon as possible,—that the several detachments were accordingly put in motion on the 9th and kept marching about till the 11th, skirmishing with different parties of the enemy, and causing them altogether a significant loss, but that the proposed junction of our three columns could not be effected, or at least only partially, owing as well to the impracticable nature of the ground, as the ill-will of great part of the population, which was evidently under the influence of the rebel chiefs, and in some places openly acting in concert with them against our detachments.

In consequence hereof, several ill-disposed villages were burned, as usual, during this excursion of three days; among others one called Manchengan, near the river Opak; in the vicinity of this village is a natural grotto or cave, into which, as it has a character of sanctity among the people, Dipo Negoro used often to retire, for the ostensible object of devotion.

This march of our troops led to no decisive result of consequence; the rebels, as usual, retreated after a short resistance and some loss in killed and wounded, and managed, though pursued as

* Continued from p. 378, vol. vii.

closely as possible, to escape, partly among the defiles of the southern hills (inaccessible to regular troops), partly over the river Proyo, beyond which they are now supposed to be in great force.

A little fatigued with my late excursion, I remained at home all day, except to take an airing after dinner, from which we were soon driven back by a very heavy shower. The English gentlemen took leave of the Resident and his party after dinner, to proceed on their tour.

News arrived that a large prow (Padowakan) or small brig had been seen a week ago on the south coast, near the entrance of the Progo river, surrounded by a number of small prows. As the insurgents are in the neighbourhood in considerable force, it was supposed by some that this might have been an English or American vessel, with arms, powder &c. for Diplo Negoro, especially as she put to sea on observing the approach of a party of our troops under Lieutenant Colonel J. who reported the circumstance. This is possible, although it is difficult and dangerous to effect a landing in that quarter. I should rather suppose the vessel to have been a smuggler from Singapore, with opium and British piece goods, the high duties on which amount nearly to a prohibition, and of course are a direct encouragement to such speculations. A great deal of opium is used at present by the rebels, our native troops and coolies. It is generally known that large quantities of English cottons do find their way into Java, without passing through the Custom-House.

17th August—There is a Bazar report from Djocjokerta that Diplo Negoro, attended by only 2 followers, went lately to the south coast, and after many prayers and ceremonies, threw himself into the sea; this event, if true, would indeed be “a consummation devoutly to be wished,” since it would probably bring about the termination of the present fatal disturbances.

19th August—This morning at day-light I went with a French gentleman, who like myself is now an inmate of the Residency, to look for some wild fowl, that are said to be in the jungle near this place; having no gun, which indeed, would have been of little use to me, being no sportsman, I armed myself with a walking stick and umbrella, and these turned out very useful, for we remained out of doors till nine, and when tired of climbing and

working my way through brambles, ditches and ploughed ground, I quietly sat down in the shade, while my companion was pursuing his sport, which, however, proved unsuccessful; we returned empty handed, but with good appetites, to breakfast, which fortunately did not depend on the fruits of the chase.

20th August—In the evening when returned from our drive, the Susunan sent word to the Resident, that he was coming to pay him a visit; about half an hour afterwards, the royal train made its appearance accordingly, with great noise and bustle. The Emperor was on horseback, in his General's uniform, followed by a large carriage half closed, from which descended the three Ratus, or Queens, with several attendants and children—there were numerous relatives and dependants, officers and pages in other carriages and on horseback, some in red and blue uniforms, more gaudy than handsome.

The Resident and his Lady received their visitors in the front verandah, where a row of chairs had been placed for the chief personages; the others, as usual, took their seats on the ground, behind the chairs of the Susunan and the Ratus; tea and coffee were handed round to all according to their rank.

The Ratus were little women and plainly dressed; I could not see them well where I sat, especially as it was dusk; there seemed nothing particular about them, but one of them, I think, was rather pretty; not a word passed between them and the European company, for they could not even speak Malay. The Resident handed them in and out of their carriage; they remained about half an hour.

21st August—This evening the Resident received an official visit from Prince Poroboyo, uncle of the Susunan, who sent him to inform the Resident, that the Emperor had been somewhat displeased on leaving the Residency last night, by a gentleman now lodging here, having presumed to offer his arm to one of the Sultanas to assist her to the carriage, an honor which, it seems, according to court etiquette, is only permitted to Residents, commandants and officers above the rank of Captain, whereas the gentleman alluded to has no public rank, being one of the unfortunate planters who were ejected in 1823 from their lands in the native provinces.

This circumstance is only worth recording, as it serves to illus-

trate the childish character of the reigning Prince; he must have made a serious matter of it, for his great uncle, Prince Bumi Notto, came previously of his own accord, to prepare the Resident for a message from the Susunan on the subject.

This is the anniversary of the birth of his Majesty the King of the Netherlands, on which occasion a royal salute was fired, Solo being one of the few places where this still allowed to be done;—it has been abolished almost everywhere from motives of economy. The salute consists of 101 guns which are fired in this manner—

33 at eight in the morning.

35 at noon.

33 at 4 in the afternoon.

These salutes, according to the regulations, are fired with powder which has been condemned as unserviceable and as small one pound field pieces were used, the report was not much louder than that of a blunderbuss, so that the salute had nothing very imposing or majestic in it.

At ten o'clock the officers of the Garrison paid a complimentary visit to the Resident.

There was no military parade, owing to the small number of troops here at present; they could not bring more than 60 men under arms, exclusive of about 50 hussars.

Our usual dinner hour was altered to one o'clock, when we took a tiffin, as we were to have a grand supper in the evening, the Resident of Solo being one of the few who are still allowed anything to give a party on this occasion; it would have been impolitic to discontinue this old custom at the native courts, where feasting is the order of the day.

In the centre of the back verandah of the Residency house, a kind of throne had been erected on a platform, elevated by three or four semi-circular steps above the floor, with a yellow damask curtain at the back and canopy of the same, surmounted by a gilt wooden crown and other ornaments; on this there placed two chairs for the Susunan and Resident; the tout ensemble looked not unlike the imitative thrones used at the smaller theatres.

Some of the princes began to arrive soon after four; at $\frac{1}{2}$ past 4 the Resident, accompanied by the Secretary and the Javan Interpreter and escorted by a party of hussars, went in his carriage to bring the Susunan; part of the royal train began to arrive soon

after, bearing the Susunan's throne and cushions, his *Siri-box*, spitting pot, &c. &c. all under gilt payungs. Some of the smaller of these appendages of royalty were inclosed in wooden boxes, with roofs to them like that of a house, carried by bambu poles on men's shoulders.

The "beauty and fashion" of Solo now poured into the Residency, and a motley assemblage they produced.

At $\frac{1}{2}$ past 5 the Resident returned with the Susunan and a large train of followers of all descriptions; they were now in the state carriage, a rather shewy than handsome vehicle. The Susunan was dressed half in the Javanese, half in the European costume; he had on the Javan jacket of fine dark coloured cloth, with large brilliant stars on each breast, under this the sarong or cotton petticoat, tucked up so as to shew his black silk breeches and stockings underneath.

The Susunan and Resident took their seats on the throne already described, and the company on two rows of chairs arranged from the back to the front of the house, in straight line from the throne; between the throne and these chairs, a carpet was laid and several chairs placed on it, which were occupied by the Princes of the blood and nearest relatives of the Susunan,—behind these, on each side, were his immediate personal attendants, holding the Court Paraphernalia, seated on the ground, with their heads bowed down, or looking only at the monarch. There were also some half-caste Europeans, in scarlet coats, his *ordonances* or messengers.

After tea and coffee had been handed round, the royal gamelan, or Javanese band of music, was brought with great ceremony and arranged in the front verandah, immediately facing the throne; the Serimpis, or dancing girls, were then brought to the back verandah, in large covered litters like boxes, which hid them from sight entirely, carried on men's shoulders; when the Susunan gave orders for them to come in, they appeared, passing in the usual creeping way before the throne, and after many windings and salams, seated themselves on the floor in front of it, two and two; there were four couple of them, each pair as nearly as possible alike in size; they were all dressed alike and very prettily, in the Javan style; the oldest pair might be 15 or 16, the youngest not more than 8 years, and the intermediate ones

of proportionate ages. Each dancing girl had an old female attendant, who came in and went away with her, and rectified any little disorder in her dress during the dance.

These girls were most of them pretty and all well made, but they danced as if they were performing a most solemn religious ceremony, not once smiling or even looking at any thing but the ground, on which their eyes were fixed the whole time; this is not however to be wondered at, for they knew that their master's eyes were fixed on them, and perhaps feared that a smile would have cost their heads; the dance commenced and ended at a signal from the Susunan, and may have lasted three quarters of an hour; one of the chief movements was that of jerking their trains, which fell in front, and passed between their feet behind, from one side to the other. On leaving off they resumed their squatting posture, made a long and theatrical obeisance to the Susunan again, and crawled out on hands and knees as they had entered. I believe they were immediately put into their boxes and carried back to the Kraton, well attended and guarded. The music during their performance was melancholy and monotonous.

After this there was a dance of boys, eight in number, who, I was told, were all sons of Princes and who were paired in the same way as the girls. They were naked from the loins upward, their hair was combed back and hung in one long bunch behind, secured by a semicircular comb of tortoiseshell and ornamented with flowers; their bodies were rubbed with yellow bori or cosmetic powder, but not their faces; each held a small circular shield in his hand, of plaited and colored bambu, and had a large kris behind in the girdle, which they did not draw, although the dance seemed intended by its peculiar movements to represent the approach and attack of an enemy; every movement was performed by each at the same time, which made the dance monotonous; the music was louder and more lively than that to which the females danced.

When the boys had ceased their dance, at a signal from the Susunan, they made their salam like the girls and retreated, not behind however, but in front, where they mixed with the company afterwards and remained in their costume the whole evening.

The Susunan and Resident now descended from the throne, and the company rose and prepared for dancing. The Susunan did not

open the ball with the Resident's Lady, as I expected, but walked about the house, arm in arm with the Resident himself, followed by numerous attendants, carrying his personal attributes; among these was a golden shield, studded with jewels, which if they were all real, must be very valuable, several rich swords, two immense long spears, which nearly touched the lofty ceiling, handsome bow and quiver of arrows &c. &c.

The Resident and Susunan, with two of the Princes of the blood, sat down to a game of chance, called in Dutch "Stoot" at which they played nearly the whole evening.

Dancing now commenced, consisting of English country dances and waltzing, in which some few of the Native Chiefs joined at times; a grandson of Mangko Negoro figured away among the rest, in his cavalry uniform jacket, with white shorts and silks (the latter borrowed of me) and really both looked and danced very tolerably.

We went to supper about 11 to which I suppose 120 people altogether sat down; it consisted of all the good things procurable at Solo, including venison, and the native guests, as usual, did justice to it. The appropriate toasts were given by the Resident, including the standing one to "the welfare of Java;" fortunately, we had only about a dozen to-night to do honor too.

After supper the Susunan changed his dress for an European uniform, and danced with the Resident's Lady down two country dances, after which the party broke up between two and three. Before that time, however, I had retired, locked my room door, and was enjoying a sound sleep, notwithstanding the noise of the music.

25th August.—I heard that when the company departed early this morning, the Ryks-bestuurder or Javanese prime Minister, was missing for some time but was found at length fast asleep, before a table, on which stood a case bottle of good Hollands that he had more than half emptied, by way of winding up at the end of the feast.

27th August.—News came from Semarang, that a strong body of rebels, under the famous Mas-Loorah, had assembled on the limits of the Kadu and Samarang residencies, with the apparent intention of penetrating into the latter. The Resident went out to attack them with the Prajurit (native militia) and a small party

of troops; but on nearing the enemy's position, it was found deserted a short time before, though it was by nature strong, and they had improved it.

28th August—There was a public breakfast at the Kraton this morning, in celebration of the Susunan's birth-day; I could not accompany the Resident thither, my face being swelled, my limbs stiff, and my head aching from the effects of a rather severe fall from my horse yesterday morning, which confined me to my room.

I afterwards learned from the Resident, that the Susunan confessed to him on this occasion, in a confidential conversation after the breakfast, that the court of Surakarta was disposed to join the insurgents in July 1825, when the troubles broke out, and that the presence and interference of the Lieutenant-Governor, (General de Koek, who came here immediately) alone prevented their doing so, and induced them to lend their support to Government; (this support, however, was but faint and wavering for some time).

This is an historical fact of some importance, as regards the present war; it had been before suspected by the Resident and many others who are acquainted with the court, but the Susunan's voluntary avowal has removed all doubt on the subject.

The prompt appearance and prudent yet firm measures of the Lieutenant-Governor may therefore be considered as the cause, which prevented the insurrection in the native provinces from becoming general, and perhaps, the overthrow of the European authority in this part of the island, at least for a time.

As soon as the first news of the appearances of insurrection at Djockjokarta reached Batavia (in July 1825) the Governor-General Baron van der Capellan called a special meeting of council, in which it was resolved that General de Koek should proceed at once to the spot, with full powers to act in the name of the European authority as circumstances might require, a decision the wisdom of which has been amply proved by the event, and now further confirmed by the circumstance mentioned above.

General de Koek, indeed, was peculiarly qualified for the very difficult task imposed upon him, of checking the revolt, preventing its spreading further, and supporting the authority of Government in the vicinity of the disturbed districts.

He joins to the cool courage and enterprising spirit which become his station as Commander-in-chief of the army, the rarer

and perhaps, on this occasion, more valuable qualities, that are called for in those who have to direct a war like the present, in a country like the interior of Java, and among a people like the Javanese.

To firmness of mind and character, great foresight and prudence, General de Koek unites a most pleasing exterior—his manners are conciliating and easy, yet not without dignity when called for, he has an inexhaustible fund of patience and good temper, so necessary in dealings with natives of India—those of these islands, their manners, customs, character and way of thinking are intimately known to him—all those qualifications contribute to give him great influence over the chiefs with whom he comes in contact, and this is a most fortunate circumstance for the interests of the European Government.

It cannot be fairly imputed to the General that the insurrection is not yet put down. He has had, from the beginning, many difficulties to overcome ; at first he had but a very small force at his disposal, the reinforcements arrived slowly and in dribblets, those from Europe, unaccustomed to the climate, were decimated by sickness and fatigue before meeting the enemy. The nature of the country gives the insurgents a great advantage in this kind of guerilla warfare, it is besides very little known to Europeans, and in many parts, indeed in most, there are no roads fit for the marching of troops. Add to all these obstacles, the powerful influence of the priesthood, which the rebellious chiefs have called into action against us, among a people remarkable for superstitions, and it will not be matter of surprise that this unhappy war has now lasted three years, and that no one can foresee when it will come to an end.

30th August.— This afternoon we went in carriages to the Chin se camp, to witness the ceremony called "rompok". Before the temple, two high stands or platforms were erected covered with rice and provisions of all kinds in baskets, and figures of bambu, of fantastic forms, decorated with innumerable flags and streamers of coloured paper and cotton cloth ; a great crowd was collected beneath and around these platforms ; before the temple was a heap of sacrificial paper, which is brought from China for the purpose, ornamented with silver and gilt leaf ;—on a given signal this is put fire to, the gongs at the same time beating with a great

noise ; the scene of havock or rompok now began, the crowd immediately fell upon the good things arranged on the platform, and a violent scramble and struggle ensued, which lasted several minutes, each securing as much as he could. One was seen running off with half a roasted pig, another with a large pot full of boiled rice, some had seized only a few cakes, and others were obliged to be satisfied with the coloured paper, part of the basket work ornaments, or one of the flags that decorated the stands ; many more returned empty handed, not having been able to reach the platforms in time ; several Chinese were stationed on the top of them, who assisted the scramblers, by throwing down the baskets of rice and other provisions among them. On this occasion, I believe, no accidents occurred, which is by no means always the case, sometimes lives are lost. I believe this is the concluding ceremony of a three days festival of a more or less religious character, in honor of their deceased friends, which takes place annually among the Chinese. The Court was present to witness the ceremony, the Emperor, in his General's uniform, on horseback, his Queens in a yellow chariot, and the Princes on horseback and in carriages.

Surakarta 1st Sept.—This day having again brought about the celebration of Prince Mangko Negoro's birth, according to the peculiar made of calculating among the Javanese, I was invited with the other gentlemen connected with, or staying at the residency, to the Prince's Dalam, to breakfast as on the 28th July, which was the last *senen pon*,* as he called it.

The particulars of our entertainment were the same as on that occasion ; I will not therefore repeat them ; I must notice however, that besides the infantry, which again performed the small arms exercise, there was a body of sixty dragoons (dismounted) commanded by two of the Prince's grandsons, who went through the Scottish broad sword exercise, with great celerity and correctness, as far as I could judge. He told me they had been taught by the English.

The Bidayas or dancing girls were to-day provided with mimic bows and arrows, with which they performed several singular manœuvres during the dance, but without shooting the arrows.

The Prince is extremely partial to dogs, of which he keeps

* *Senen* means Monday, *Pon* is the first day of the Javanese week of 5 days.

several, a custom very rare among Mahometans, who consider dogs as unclean animals, and little better than swine. He has one of the largest English Mastiffs I ever saw, with a broad black muzzle; this dog is said to be a match for a small tiger, or a wild hog.

On this occasion the Prince exhibited the feats of a favorite and beautiful water spaniel, for our amusement, or his own. This dog fetched his master's slippers from the interior of the Palace, one by one; a messenger coming in with a letter, the dog was sent for it to the front steps of the hall, and brought it between his teeth to his master, without at all injuring it. He was afterwards ordered to undress one of the attendants, which he did very regularly, growling and worrying him, when he resisted in appearance, and taking every article of clothing from him separately and laying it down at his master's feet; at a signal afterwards, he carried the whole back, piece by piece, to the owner, who had taken refuge behind one of the wooden pillars of the Pendopo, *en grand déshabille*.

After breakfast, Javanese perfumed cigars were handed to the company. The tobacco in these is mixed with gum benjamin and other aromatics, diffusing an agreeable smell, which however I thought was less enjoyed by the smoker himself than by those near him. These cigars are wrapped in dried leaf, and tied round with silken thread. Some of them, which are made for the Emperor, are very expensive, on account of the quantity of perfume that is mixed up with them; these are made by the Princesses of the Court: those used by the common people are made in the same way, but smaller, and without any perfumes.

3rd September—A native festival took place to-day, at the Dalam or Palace of the Radin Adipatti, or Prime Minister of the Susunan, in fulfilment of a kind of vow he is said to have made some months ago, when the Resident's Lady was very ill, to give a party of 100 persons after her perfect recovery; he and his wife paid a visit yesterday morning at the Residency, and invited the Colonel and his family, in which I was included.

At ten o'clock we proceeded to the Dalam, where we were obliged to leave the carriage in the outer court, and walk through the inner one, in the heat of the sun, to the great hall or Pendopo, the inner gateway not being practicable for carriages; the Radin

Adipatti came to receive the Resident in the court, and his wives and daughters advanced to the front of the hall to greet Mrs N. who retired with them to the back of the building, where a row of seats were arranged, between the great hall and the interior apartments; here the entertainment was afterwards laid out.

In the inner court, some of the minister's household troops were drawn out under arms; there were about 100 muskets, half of the men were in blue uniforms, with scarlet foraging caps, and looked tolerably well. The rest wore the usual Javanese dress; they seemed to handle the muskets with ease and quickness, but not so cleverly as the troops of Mangko Negoro; these few men were commanded by a Major and a Captain, both sons of the minister, and wearing the Dutch Colonial Uniform, one of these was pointed out to me as having acted upon the maxim of Hudibras, and ran away most valiantly, when he accompanied the Colonel in December last to attack a band of rebels in the interior of Rembang, on which occasion nearly half the party commanded by the Colonel were killed or taken, and he only escaped through the speed of his horse. There were, besides, about 100 spearmen without uniform, drums, fifes and colours; the former played a flourish, and the latter were lowered when the Resident and his party passed before them to the open hall.

There was a large company present, consisting of Europeans, country born and native chiefs, for whom chairs were arranged in straight files round three sides of the Pendopo, the front being left open for the minister's dependants and Javanese public, who collected there, as usual, in crowds to witness the festivity.

The amusements began as usual, with the music of the gamelan, which seemed a complete and handsome one; there were four or five male singers, who chaunted from a manuscript, some verses in Javanese to the monotonous music. The verses were taken from the poem of the Brata Yudha, or Holy War, which the Javanese have borrowed from their former masters, the Hindus; after this some lines were sung, or rather chaunted, descriptive of the early life and public services of the chief who gave the entertainment, which reminded me of the custom among the ancient inhabitants of Britain, when at the public festivals of the feudal chiefs, their household Bards sang their own praises to them accompanied by the harp.

After this performance was over, preparations were made for a kind of drama, peculiar to the Javanese, performed by men and boys in masks, called *Topeng*; these actors were as usual naked from the waist upwards, and their brown skins plentifully covered with yellow bori or cosmetic-powder; to make amends for the want of clothing above, they were loaded with apparel below, consisting of close trowsers of bright colored stuff, with numerous sarongs and salendongs (petticoats and scarfs) of dark colored cotton, hanging or tucked up over them. They all wore *Krisses* and some of them two; their masks were of light wood, fitted to, and covering the whole face, leaving small holes for the eyes and mouth; they must be very warm and *génant* to the wearers, who were obliged to lift up the lower part while speaking, holding the factitious chin of the mask by the hand, 2 or 3 inches before their own chins; this had a ridiculous effect; the exterior of these masks imitate the human features pretty well, except that the nose is more pointed, and the eyes larger than those of the Javanese in general. They do not copy the complexion, but are painted of every colour; one actor's face looks green, another dead white, a third bright red, some of them are covered with gold or silver leaf, others have red or yellow eyes, immense grinning mouths, with projecting tusks &c. Upon their heads some wore a kind of cap, of horse-hair, intended, I believe, to designate the high head-dress of the ancient heroes whom they represented.

The performance consisted of dumb show or pantomime, soliloquy and dialogue by turns, accompanied by the music of the gamelan. Some of the dialogue appeared to be of a humorous character, for it excited loud laughter among the humbler part of the Javanese audience, the higher chiefs consider this unbecoming their dignity in public. The attitudes and motions of the actors were mostly unnatural and extravagant, some of them grotesque; indeed their performance seemed to partake both of romance and buffoonery. They had no stage or scenery, but performed on the floor of the hall, surrounded closely by the spectators; it must be owned that the drama is still in a very low stage among the Javanese.

About half past one we sat down to breakfast, tiffin or dinner, I know not what to call it, for it partook of each; the table was plentifully covered with good things, all kinds at once, from

soup and fish to fruit and pastry ; as usual we had a number of toasts to honor, standing up and cheering to each; our worthy host pledged them all so faithfully, that he evidently felt the influence of the jolly god before we rose from table and the last toast he gave was quite unintelligible to all present; it received however as much attention and applause as the others; he is well known as a lover of the bottle and has quite the appearance of a *bon vivant*, which is rare among his countrymen; he can bear a quantity of liquor, however, without becoming very drunk, and this is the case with several of the chiefs of Solo.

At the other native Court (Jocjocarta) Bacchus is not without his votaries likewise, but has a powerful rival in the opium pipe, to the use of which the chiefs of Jocjocarta are much addicted, being less polished and European in their manners and habits than those of Solo. One of the first personages at the latter Court is at this moment indebted two thousand guilders at the tavern, the whole of this however is not for liquors.

Our host was appointed Prime Minister or chief regent of Solo in the English time, and has kept his station ever since; in which he has been more fortunate than the Premiers of England. This officer is appointed by the Native Sovereign, but subject to the approval of the European Authority, which can remove him at pleasure.

We rose from table after a session of nearly two hours, in the middle of the day, in a close low building, filled with people, and surrounded by some hundreds of the dependants and populace; all this made the heat almost intolerable, and I was glad when the Resident called me to return; it was nearly four o'clock when we reached home, when I had to prepare for my removal to Buyulali tomorrow. I took leave of my Solo acquaintance in the evening after dinner.

4th September.—Rose at half past four, dressed hastily, and repaired to the Hotel next door to the Residency, from whence the conveyance was to start. We left Solo a few minutes after five, the morning fair and very cool, so that I was obliged to put on my boat cloak, which I had fortunately taken with me, feeling the wind penetrate through my woollen morning-gown, especially as we were in an open carriage and going pretty fast; for the two first stages the road is good and level, the next stage is on a con-

tinual ascent and not so good ; the bridges decayed, and requiring to be renewed. Arrived at Buyulali about half past seven, before the sun became troublesome, and without being at all fatigued. My baggage left Solo with me, carried by coolies, and arrived about noon.

Buyulali, 6th September—Notice was received yesterday evening, that the Emperor and suite, accompanied by the Resident, would make an excursion from Solo to Klatten, this day, and proceed by the crossroad from the latter place to Buyulali to-morrow, visiting the intermediate Bentings or stockades by the way.

This intimation created an unusual stir in the village, and all hands were put in requisition to make arrangements for the reception and entertainment of the distinguished visitors. I assisted at a committee, to decide what spot should be chosen for the purpose; there was indeed no very great choice at Buyulali, the fort being small and full of little unsightly buildings. The Warehouse keeper and another Government servant, representing the local Authority, are the only European inhabitants, and both occupy small bambu-houses. At length it was resolved that the front Pendopo, or shed of the latter's habitation should be employed, and ornamented for the occasion; this was done with all practicable speed, and finished in the course of this day; the rough wooden posts, that support the roof, were neatly covered with young leaves of the cocoanut, sewed together like matting, sugar-canes, and bunches of young cocoanuts and plantains were fastened to these posts; according to Javanese custom at festivals, an ornamental arch, or gateway of bambu, stuck over with green leaves and flowers, was erected at the entrance, and long spears, to which the Netherland's colours were fastened, fixed in the ground beside it.

White cotton cloth was spread under the roof of the Pendapo, as a kind of canopy, to hide the bambus and dried grass of which the roof is formed; the roof itself was lengthened with mats, fastened to bambu posts and cross rafters at the top, the sides of the shed were removed further out, by placing additional bambu piles and mat work fastened to them, and adorned with arches of bambu and young cocoanut leaves, fancifully cut and fringed; rattan mats were laid over the earthen floor, and thus in a few hours, with no other materials than were procurable at once on

the spot, a large open room in rural style was prepared for the expected guests, and really it had a gay and pleasing appearance altogether. Triumphal arches of bambu, adorned with foliage and flowers, were erected across the road at short distances, through the village, and before the fort, and numerous flags and streamers fluttered by the road side. The native regent sent his gamelan, for which a shed was erected by the side of the house, and a smaller band was posted on an eminence, a short distance behind it, overlooking the highway, to strike up when the cavalcade should appear in sight.

The commandant of the little fort prepared his guns to fire a salute if required, and his native soldiers to form a file by the roadside, through which the Emperor and Resident were to pass. Three or four carriages arrived in the course of the day from Solo to carry the party back there, as they were to come here on horseback.

Meanwhile the department of culinary affairs was in full activity, in which fortunately my servant was able to make himself useful, having once practised that noble art for some time. A dozen cooks, male and female, some improvised for the occasion, were busy assisting him; a fat sheep was killed, with a quantity of poultry of all descriptions, and every preparation made for a substantial public breakfast or *déjeuner dinatoire* to-morrow.

Buyulali, 7th September.—The preparation for the due reception of the Susunan and Resident were re-commenced at day-light this morning; the ground around the house was well watered, to prevent the dust being blown about by the high winds that often prevail here; white cotton cloth was laid over the rattan matting for the great personages to walk upon; boiled rice, cakes, fruit and Javanese prepared dishes were sent in large quantities by the native chiefs, who went themselves on horseback in their best dresses, with numerous followers, to meet the party at some distance on the road.

About eleven o'clock a courier arrived, who had left them at the nearest stockade, to announce their approach; in a quarter of an hour the native band on the hill behind gave notice of the cavalcade being in sight by striking up a lively air. The commandant now arranged his men at the roadside, and we put on our coats, and prepared to receive the party at the gate.

It was preceded by several of the Emperor's dragoons and chiefs on horseback, then come His Highness and the Resident, side by side, followed by several Princes, and two or three European gentlemen, a great number of native officers and chiefs mounted, and a large and motley concourse of pedestrians brought up the rear.

The Susunan wore his general's hat, which he seems very partial to, a kind of fancy uniform, with epaulettes of real gold, a diamond star on each breast, and a kind of shoulder belt, fastened by a large diamond buckle, at his back, bearing a kris richly studded with diamonds, in a gold sheath ; he rode a very pretty grey pony, most gaily caparisoned. The Princes wore European cavalry uniforms, with foraging caps over their turbans, krisses and belts set with diamonds. They were heated and fatigued with the ride through the sun, and well disposed to do honor to the entertainment. While this was serving up, they walked to the fort and over it, in which there is not much to see ; on their return we sat down to breakfast, about 24 persons at table, and perhaps as many more, whose rank did not allow them to sit with the Susunan, took their places on the floor in front, where Javanese and European dishes, with tea, coffee, claret and gin *a discretion* were placed before them, on the mats. During the meal, the music of the gamelan performed, accompanied from time to time by female singers, or rather screamers.

The health of the Susunan, of the Resident, of the local officers, and some others, were drank as usual, with cheers. The party took leave of us about 2 o'clock, and set out on their return to Solo in carriages, apparently well pleased with their reception, which certainly did credit to those concerned, considering that only one day's notice had been given.

THE
JOURNAL
OF
THE INDIAN ARCHIPELAGO
AND
EASTERN ASIA.

NOTICES OF SINGAPORE.*

SINGAPORE PRICE CURRENT—OCTOBER 1st, 1821.

	Sp. Drs.	Cts.	Sp. Drs.	Cts.		Sp. Drs.	Cts.	Sp. Drs.	Cts.
Anchors $\frac{1}{2}$ cwt.	12	..	a	15	Lingin Tin per picul ..	17	75	a	18
Betelnut ,, picul .....	..	..	..	..	Linseed Oil per gallon.	3	..	..	..
Baftas	40	..	45	..	Mace Amboyna .....	..	..	..	..
Blue Gimahs	45	..	50	..	Nutmegs per 1000 wild	6	..	6	50
Black Paint $\frac{1}{2}$ lb....	25	..	..	..	Opium, Patna per chest	1650	..	1700	..
Benjamin Head $\frac{1}{2}$ pcl.	25	..	30	..	Opium, Benares ,,	1625	..	1700	..
Ditto Belly	12	..	15	..	Opium, Malwa per pcl	1500	..	..	..
Ditto Foot	3	..	5	..	Piece Goods Gurrahs	..	..	..	..
Banca Tin	19	..	19	50	per corge	40	..	45	..
Bird's Nest $\frac{1}{2}$ catty ..	36	..	45	..	Patna Chintz	22	..	25	..
Beer in cask $\frac{1}{2}$ Hhd..	50	..	60	..	Paint White per lb. .	..	25	..	..
Beer in bottle $\frac{1}{2}$ doz..	8	..	9	..	Green ,, .. .	..	50	..	..
Brandy	8	..	12	..	Yellow ,, .. .	..	25	..	..
Brass Guns $\frac{1}{2}$ catty ..	..	..	..	..	Black ,, .. .	..	25	..	..
Bottles $\frac{1}{2}$ 100	3	..	5	..	Red ,, .. .	..	25	..	..
Birmingham Ware ..	..	..	..	..	Powder, Gun per lb. in	..	..	..	..
Broad Cloth $\frac{1}{2}$ yard ..	3	..	5	..	Cannister .....	..	50	..	..
Canvas per bolt	7	..	10	..	Patna Gram per bag ..	3	..	4	..
Cocoonut Oil per picul.	8	..	10	..	Pepper per picul .. .	9	50	9	75
Camphor 1st sort .....	..	..	..	..	Port Wine per dozen..	10	..	12	..
Claret French per doz.	10	..	12	..	Pine Cheese .. .	..	..	..	..
Champagne .....	..	..	..	..	Rice, Patna per bag ..	4	50	5	..
Canvas Eur: per bolt..	10	..	12	..	Rice, Moongy ,, .. .	3	25	4	..
Chalk per picul .. .	..	..	..	..	Raw Silk, China per pcl	360	..	380	..
Coals per picul .. .	..	..	..	..	Rattans	1	50	2	75
Copper Sheet $\frac{1}{2}$ maund	..	..	..	..	Sugar, Siam 1st sort..	6	50	6	75

* Continued from page 357, vol. vii. 1853.

At a meeting of the undersigned European merchants, held by requisition of the Resident, to take into consideration certain points connected with the police, as expressed in a letter from the Secretary to Government, Fort Marlbro, under date the 2nd July last, it was, after the said letter had been read, unanimously agreed and resolved:—First, that the proceedings of the 20th March, be confirmed. Secondly, that the present strength of the police in Singapore town is considered sufficient as a temporary arrangement— and Thirdly that the Resident be requested to suggest to the inhabitants of Campong Glam and the Chinese town the propriety of entering into subscriptions to extend the Singapore system to those Campongs.

CHAS. SCOTT,
CLAUDE QUEIROS,
ALEX. L. JOHNSON,
A. GUTHRIE.

Singapore, 13th September, 1821.

Statement of the Strength of the Police

Names.	Paid by Government	Station.
Fras. Jas. Bernard	Assistant to the Resident	
Radin Mohamed.....	Malay Writer.	
Raimond Suaris.....	Jailor.	
Mohamed Cassim.....	Jamedar.	
Eight.....	Peadas.	

Paid by the Night Watch Fund.

Fakirdun.....	Jamedar.
Nine.....	Peadas.

FRAS. JAS. BERNARD,
Assistant, Police Department.

Singapore, Police Office, September 13th, 1821.

N.B.—Average amount of subscriptions. . Sp. Drs. 54 pr. mensem

Town Committee.

Proclamation by the Hon'ble Sir Thomas Stamford Raffles,
Lieutenant Governor of Fort Marlborough and its Dependencies.

Whereas several European Merchants and others having occupied and constructed buildings of Masonry on portions of

ground on the North Bank of the Singapore River and elsewhere, within the space intended to have been reserved exclusively for public purposes, viz between the old lines and Singapore River from the sea inland to the back of the hill.

Under the present circumstances of the Settlement it is not the desire of Government to insist on the immediate removal of such buildings as may have been constructed of Masonary by Europeans and completed before the 10th April last, unless the same may become indispensable for the public service, but the parties interested are warned of what is intended, and the construction by individuals of all further buildings whatever, as well as the outlay of all further sums of money on those already constructed within the limits aforesaid, after this date, is most strictly prohibited.

The terms on which the above indulgence will be granted to present occupants will be hereafter made known.

These orders have application principally to the ground near the River occupied or intended to be occupied for commercial purposes and have no immediate reference to officers' Bungalows, for which, being a public purpose, an express provision was made, but it is clearly to be understood that all dwelling houses or buildings whatever situated within the limits aforesaid, whether the same may be in the actual occupation of Military Officers or of private individuals, are considered to be on the same footing and alike subject to the cantonment regulations.

That no person may plead ignorance hereof, the Resident will cause this Proclamation to be duly promulgated and copies affixed at the usual places for general information.

Given under my hand, at Singapore, this 29th day of October, 1829.

(Signed) T. S. RAFFLES.

Notice is hereby given, that in order to afford comfort and security to the different descriptions of inhabitants who have resorted to this Settlement, and to prevent confusion and disputes hereafter, it is the intention of Government forthwith to appoint a competent Committee, with such advice and assistance as may be necessary, for appropriating and marking out the quarters or departments of the several classes of the native population.

This committee will consist of three European Gentlemen and

of a Representative from each of the principal classes of Arabs, Malays, Bugis, Javanese, and Chinese, and it will hold its first sitting on Monday next.

Pending the sitting of this Committee and until further orders all persons are required to suspend the construction of whatever buildings they may have in hand, whether of stone, brick or wood.

It is required of all persons to attend the summons of the said committee and to afford all possible information and assistance in their power that may be demanded of them.

That no one may plead ignorance of this advertisement, the same is to be translated into the native languages, published by beat of gong, and affixed at the usual places in Campong China, Campong Glam, and elsewhere.

By order &c.,
(Signed) L. N. HULL,
Acting Secretary.

To Captain C. E. Davis, President.

George Bonham, } Esquires, Members.
Alex. L. Johnston, }

Gentlemen,—The extent of the native population which has already accumulated at Singapore and the rapidity with which it daily increases, render it expedient that in providing for its accommodation a timely attention should be paid to its future regulation, with reference to the circumstances of the place and the peculiar character and institutions of the several classes of inhabitants of which the society will be composed.

It has been observed by the Supreme Government “that in the event of Singapore being permanently retained, there seems every reason to believe that it will become a place of considerable magnitude and importance, and it is essential that this circumstance should be constantly kept in mind, in regulating the appropriation of land. Every day’s experience shews the inconvenience and expense that may arise out of the want of such a forecast” and in this respect an economical and proper allotment of the ground intended to form the site of the principal town is an object of the first importance, and one which under the present circumstances of the Settlement will not admit of delay.

In order to provide for this object in the best and most satis-

factory manner, which our present means admit, I have appointed you to be a committee for the purpose of suggesting and carrying into effect such arrangements on this head, as may on the whole appear to be most conducive to the comfort and security of the different classes of inhabitants and the general interests and welfare of the place, and in the performance of the duty you will be assisted by the Assistant Engineer and Assistant in the Police Department, and guided by the following instructions.

In considering the extent of ground necessary to be appropriated for the town generally, reference must be had not only to the numbers of the present inhabitants and the probability of their future increase, but to the nature and occupation of the several classes of which it is composed, and the demands they may respectively have to preference in regard to advantageous sites for trade &c. and it will be a primary object to secure to the mercantile community all the facilities which the natural advantages of the port afford. At present a considerable portion of the sea and river face, which may hereafter become important for mercantile purposes, is occupied by the lower classes of Chinese, and as might be expected many of the early settlers have occupied positions and extent of ground which are now urgently demanded by a higher and more respectable class. A line must be drawn between the classes engaged in mercantile speculation and those gaining their livelihood by handicrafts and personal labour; the former, and particularly the principal merchants, will require the first attention and there does not appear any reason why the latter should in any instance be allowed to occupy those situations which are likely at any time to be required by the commercial community. The cultivators form a third and interesting class, particularly of the Chinese population, but as no part of the ground intended to be occupied as the town can be spared for agricultural purposes they will not fall under your consideration, except in as far as it may become necessary to exclude them.

The town may already be considered to occupy an extent of the sea face, from Tulloh Ayer to the large inlet formed by Sandy Point, of nearly three miles, and it may be presumed that if a space is reserved from thence inland in every direction of from half a mile to a mile, as the ground may admit, it will be suffi-

cient for all the purposes required in a principal town. A second town is gradually rising near the Salat or Malay Straits, and as soon as the road of communication is opened it may be expected that a very considerable population will collect in that quarter but this does not fall under your immediate consideration.

Along this line of sea face it will be expedient to preserve for the public, all the space between the road which runs parallel to the beach and the sea and generally deemed advisable in the neighbourhood of the Settlement to reserve an open space along the beach, excepting where it may be required by individuals for special purposes. With this view the Chinese artificers and others who have settled on the beach near Tulloh Ayer and Campong Glam will be required to remove from thence without delay.

In the distribution of the ground intended to form the site of the town, you will most particularly observe that the whole of the space included between the Singapore river and the old Lines, inland from the sea face to the back of the hill, including a space of 200 yards East of the old lines, is reserved for the immediate purposes of Government.

You will further keep in mind that Government also necessarily reserves all such commanding points in the town and its vicinity which may be useful for the defence of the place, such as the point at the entrance of the river, and the high grounds to the westward as well as the space between Sandy and Deep Water Points to the eastward, which it is intended to appropriate as a Marine Yard. With these exceptions the whole of the space above pointed out may be allotted to individuals.

In fixing the site of the European town to the eastward of the cantonments, it was in the first place considered that the north east bank of the Singapore river as far as the hill would, with the whole of the space included within the old lines of Singapore, be indispensable for the public service, whenever the permanence of the settlement might be established, and in the second it was obvious that if relinquished by Government its extent was too limited to admit of its affording accommodation to

all the European and other merchants who might be expected eventually to settle, and experience has already abundantly verified these presumptions. It is admitted that the N. E. bank of the river and space occupied as cantonment possess peculiar advantages for the public in general and for the particular use of Government, and it is deeply to be regretted that any deviation should have been allowed from the original plan ; under existing circumstances, however, some modification is thought advisable, and with the view of affording every possible accommodation to the trade of the port, it is proposed that in addition to the sea face to the eastward of the cantonments, the whole of the S. W. bank of the Singapore river with a circular road round the hill between the point and Tullloh Ayer, shall be appropriated for the use of European and other merchants.

Under this arrangement and the immediate accommodation which has been afforded to the principal part of the European merchants already settled, it is concluded that individuals will no longer feel an inclination to intrude on what may be considered the peculiar property of Government, but that those who may have planted themselves within its precincts will be sensible of the impropriety and zealous in repairing the inconvenience they have occasioned, by an early removal of the materials of which their buildings are composed.

The necessity of draining the ground on the south west side of the river, is no less indispensable for the health of the Settlement than for securing the foundations of whatever permanent buildings may be erected thereon, and it is intended to proceed on the operation with the least delay practicable. In the meantime, however, and during its progress, it is necessary that the present temporary buildings along the banks of the river should be removed, a measure which it will be your duty to carry into effect under the advertisement of this date, in such manner as shall be least inconvenient to the parties concerned.

To the Eastward of the Cantonments as far generally as the Sultan's, and inland to the bank of the Rochor river and the foot of the hills, including the whole of the great Rochor plain, is to be considered as set apart exclusively for the accommodation of European and other principal settlers.

Native Divisions
or Campongs:

Your attention however is to be more exclusively directed to the proper allotment of the Native divisions of the town, and the first in importance of these is beyond doubt the Chinese.

Chinese Campong. From the number of Chinese already settled, and the peculiar attractions of the place for that industrious race, it may be presumed that they will always form by far the largest portion of the community. The whole therefore of that part of the town to the south west of the Singapore river (not excepted as above) is intended to be appropriated for their accommodation. They will be permitted to occupy the south west bank of the river above the intended bridge on certain conditions, and the highroad leading from the bridge to the present Chinese campong, as well as the banks of the small inlet to the southward of it, will offer many advantageous situations as yet unoccupied. These will be particularly pointed out to you by the executive officer and you will proceed to mark out this division of the town generally inland as far as practicable up the slopes of hills, as may appear to be likely to be required, reserving an appropriate place above the bridge for the accommodation of the lower classes of Chuliahs and others employed in boat, cooly work &c.

In establishing the Chinese campong on a proper footing, it will be necessary to advert to the provincial and other distinctions among this peculiar people. It is well known that the people of one province are more quarrelsome than another, and that continued disputes and disturbances take place between people of different provinces; it will also be necessary to distinguish between the fixed residents and itinerants,—between the resident merchants and the traders who only resort to the port for a time. Of the latter those from Amoi claim particular attention, and it may perhaps deserve consideration whether on account of their importance it may not be advisable to allot a separate division for their accommodation even to the westward of the Cantonments, beyond the European town and the Sultan. The object of Government being to afford the utmost accommodation to every description of traders, but more particularly to the respectable classes, you will always keep this in view, and while you generally direct your attention to the importance of concentrating the different classes

of the population in their separate quarters, you are not to lose sight of the advantage which may arise from deviating from this rule in special cases where the commercial interests of the Settlement are concerned. Few places offer greater natural facilities for commerce than Singapore and it is only desired that the advantage of these facilities be afforded to all who are competent to avail themselves of them in the proportion to their relative importance and claims to consideration.

It being intended to place the Chinese population in a great measure under the immediate control of their own chiefs, you will fix up such central and commanding sites for the residence of these authorities and appropriate to them such larger extent of ground, as may tend to render them efficient instruments of police, and at the same time raise them in the consideration of the lower classes.

You will also line out the different streets and highways, which should as far as practicable run at right angles and in no instance be less than—feet in breadth. To preserve uniformity and regularity hereafter, you will be pleased to class the streets according to their relative advantages of situation under the heads of 1st, 2nd and 3rd class, determining the least space along the street which shall be occupied by each house and consequently fixing the exact number of houses which each street will contain. It is proposed to fix a small ground rent on the spot occupied by each house, of one, two and three dollars for every fathom of front, according to the above classes, to be collected annually on the 1st of January and you will inform the parties that prior to the 1st of January next arrangements will be made for numbering the houses and granting them certificates of possession. Each street should receive some appropriate name and it will become the duty of the police to see them regularly numbered. Each street or division should also have a portion set apart for a police station.

The danger and apprehension of fire is at present so great that the most respectable of the inhabitants, including all the native merchants, seem desirous of constructing buildings of masonry with tiled roofs, and it will be at any rate necessary to stipulate for this in the immediate vicinity of the allotments set apart for the larger commercial store houses.

The concentration of the different descriptions of artificers, such

as blacksmiths, carpenters &c. in particular quarters should also be attended to.

It will further be advisable that for the sake of uniformity and gaining as much room as possible a particular description of front for all brick or tiled houses should be attended to, and it is conceived that while the breadth of the streets is strictly preserved as above directed, a still further accommodation will be afforded to the public by requiring that each house should have a verandah of a certain depth, open at all times as a continued and covered passages on each side of the street.

In fixing a proper site for the principal church, theatre &c. care should also be taken that it be in a central and open situation and that a considerable space be kept clear in the vicinity.

Although the object of your appointment does not include the details of police it will nevertheless be incumbent on you to suggest any general regulations which may appear to you as advisable in this respect, as far as the same may be connected with the plan of the town and the nature of the buildings of which it will be composed; under this head may be included draining, lighting, watching, cleansing and the like.

Next to the Chinese your attention will be directed to the Bugis settlers. They at present occupy the whole extent Bugis Campong. from Campong Glam to the mouth of the Rochor River, but it is conceived that they may be more advantageously concentrated on the spot beyond the residence of the Sultan. In this case a part of Campong Glam, immediately adjoining the Sultan's residence, may be occupied by the Arabs according to a plan that will be submitted by Lieutenant Jackson, who has instructions to mark out the European town in that direction.

In the allotment of the Bugis town it will be equally necessary to attend to economy in the distribution of ground by laying out regular streets inland towards the river and obliging the inhabitants to conform thereto. At present the houses are scattered without any attention to order or convenience. This will become the more necessary in the event of its being determined to allow a Campong in this direction to the Amoi Chinese, as alluded to in a former paragraph.

The Arab population will require every consideration, and their expected members should not be estimated at less Arab Campong. than from 1 to 2000. No situation will be more appropriate for them than the vicinity of the Sultan's residence, and it will only be necessary in providing the accommodation they require to keep in view the convenience of separating them as far as practicable from the European dwellings, with which they will in such case come nearly in contact.

It being intended to appropriate the space between Sandy and Deep Water Points as a marine yard, permission Marine Yard. will be given to Chinese artificers to settle in the vicinity of the public works on certain conditions, and by this arrangement it is calculated that accommodation will be afforded for a large portion of that description of people who will now be required to remove from the opposite beach. A moderate compensation to such Chinese settlers as may be required to remove their dwellings, under the arrangement now generally directed for the native town, will not be objected to but the same must be defined and in no case exceed the actual expence to which they may be put to in removing.

The beach from the extremity of the European town will still continue open for the repair and building of native vessels as at present, and it is proposed that hereafter a public pier should be thrown out in this quarter in the most convenient spot for trade.

Reference has already been had to the advantage of allotting a separate division for the town class of Chuliahs Chuliah Cam- up the Singapore river, and this will of course be pong. done with a due consideration of their expected numbers and the necessity of their residence being in the vicinity of the place where their services are most likely to be called for.

The Malay population being principally attach to the Tumun- gong or engaged in fishing may not require any Malays. very extensive allotment. It is probable the larger portion of the former will settle near Panglima Prang's and the upper banks of the river and the latter will find accommodation for themselves in the smaller bays and inlets beyond the immediate line of beach reserved for the town, but you will of course advert to the same as far as may be necessary.

As a measure of police it is proposed to remove the fish market

to Tulloh Ayer without delay and it will be the duty of the Committee to consider in how far the general concentration of the fish, pork, poultry and vegetable markets, in the vicinity of each other, may not be advantageous for the general convenience and cleanliness of the place.

The importance of early provision for Mohametan and Chinese burial grounds, particularly the latter, at a suitable distance from town, will necessarily fall under your consideration.

You will assemble as early as practicable and as soon as you shall have decided on some general mode of proceeding for the despatch of business, you will be pleased to call upon the heads of the principal classes of natives to be present at your deliberations, explaining to them the object of your appointment and the desire of Government, in associating them with you, that the interest of all should be duly considered in the arrangements adopted.

With reference to the extent and nature of the duties required it will be advisable that you should report your proceedings from time to time for consideration and confirmation, and that whenever you have generally defined the arrangement to be adopted in any particular division, you leave the detail to be carried into effect by the Executive Officer or Police Department, or some subordinate committee, who will as occasion requires receive especial instructions for the purpose from Government, according to your recommendation.

In conclusion, it may be only necessary to observe that in imposing such extensive and varied duties on your committee, I feel fully confident that they will be performed in the manner most advantageous to the general interests of the settlement and most creditable to yourselves and that you will duly appreciate their importance and necessity.

I am &c.

(Signed) T. S. RAFFLES

Singapore 4th Novr. 1822

To

G. Bonham, Esq., Lieutenant Jackson, and F. Bernard, Esq.
Gentlemen,

It being essential that the several arrangements for the improvement of the town of Singapore should be carried into effect with the least delay practicable, I am directed to inform you

that the Lieutenant-Governor has been pleased to appoint you to be a committee for the purpose of superintending these arrangements and carrying them into effect forthwith, conformably to the plan laid down, with such modifications as may from time to time be communicated to you by the Lieutenant-Governor.

The general plan of the town, shewing the allotment of the different Campongs, principal roads and streets, and ground reserved for public purposes, is in possession of the assistant Engineer who will from time to time communicate with the Lieutenant-Governor personally on any modifications that may become necessary.

The first and most important point to be attended to is the removal of the native population and buildings from the space on the north bank of the river between the Tomongong's and the sea, to the opposite side of the river, and a date should be fixed at which the present buildings, if not removed by the present occupants, will be pulled down by Government.

I enclose for your information the report of the Resident on the value of these buildings and the progress made by the parties in removing, and it will be your duty to see that a proper allotment of ground on the opposite side be made for all persons obliged to remove and who may not already have provided themselves with lots.

In the event of any question arising relative to the amount of valuation of any particular property, you will give due consideration to the same and submit your opinion thereon for the further orders of the Lieutenant-Governor.

The principle on which it has been resolved to proceed in granting remuneration to the parties, is to advance them one half of the estimated value of their present buildings immediately, and to pay the remainder at the expiration of six months if a brick building, or of three months if of plank, to be calculated from the 1st of February, provided the buildings are then removed or transferred to Government.

It is probable that to some of the parties advances have been made on this account, as the Resident was long since authorized to grant to them whatever remuneration he deemed the parties entitled to, the particulars of these you will of course ascertain and attend to.

The Resident will now be authorized to make such further

advances on this account as may be required, on bills from the parties countersigned by the members of the committee.

The removal of the Chinese houses on the sea face at Campong Glam, the formation of the Chuliaah campong there, and the laying out and appropriating of Bugis town will also deserve your early attention.

The removal of the Chuliaah and Dhoby encampment near the Sepoy Lines should be immediately effected, in order that the ground may be appropriated for the purposes for which it is intended.

During the progress making by your committee the assistant Engineer will use every exertion in his department, and on reference to the Sitting Magistrate, you will at all times obtain the most ready and efficient assistance from the police, and as all parties have long had notice of the intentions and views of Government, there seems no occasion longer to delay the adoption of any measure of general improvement on account of the particular accommodation of individuals.

The formation of the new streets with the construction of the markets are objects deserving your early attention, and as the object of your appointment is to enable you not only to prosecute but complete all the arrangements for laying out the town, you are authorized to make such appropriation of ground to natives as may be entitled to consideration, and finally to do all such things in view, reporting your proceedings from time to time for the information of the Lieutenant Governor.

The Lieutenant Governor feels satisfied that the members of this committee will both individually and collectively feel the high importance of the trust reposed in them, and execute the same with zeal and ability.

I am &c.

(Signed)

L. N. HULL.

Acting Secretary.

Singapore 28th February 1823.

THE TIN MINES OF MALACCA.*

Geological and Local Description of Malacca.

MALACCA, that is the district of Malacca belonging to the English government, and which shall always be designated under that name in this article, is only a small part of the west coast of the peninsula of Malacca. It is bounded on the south by the Straits of Malacca, on the east by the Kassang river and on the west by the Lingi river. The country at a distance of 2 or 3 miles from the shore is, where low, tolerably level ground, of a yellow clay soil, in some places mixed with sea sand, adapted for paddy fields, elsewhere very hilly and in this agreeing with Banka. These hillocks are covered with brushwood or a little forest to some miles distance from the shore; further in is found forest in which we meet with abundance of gigantic trees perhaps centuries old. The hillocks are separated by vallies, nearly all without regular order and less broad than those of Banka. Such extended and deep lalaps (swamps) as are found there, I have not noticed in Malacca. The vallies in some places consist of a yellow clay soil, which is sometimes cultivated; on other places they are evidently filled up with the composite products of granite. The mines are worked in these last. The hills in the district are not of a very great height. Just over the boundary, however, in the Malay territory, lies Gunong Ledang, also called Ophir, which is said to be about 7,000 feet high.† This mountain consists, according to report, of a kind of very large grained granite. I have observed no granite in Malacca itself, with the exception of some isolated blocks on the slope of Bukit Sungi, the nature of which agreed entirely with that of Banka. For the rest, we also find, though in less quantity, the ferruginous red sandstone soil which is found so plentiful in Banka. Where this is observed, we could almost imagine ourselves to be in Banka, as far as regards the vegetation and the form of the country.

I only saw a single small detached mine worked in this ground, which sometimes at a greater depth passes into a yellow colour.

* This article is an extract from a report made to the Netherlands India Government in 1850, by Dr. H. Croockewit and is translated from the *Tijdschrift voor Nederlandsch India*, 13th year, 11th No., Nov. 1851.

† Recent observations make it 4,400 English feet.—*Ed.*

People generally work here in a ground which consists of fine or coarse sand, mixed with pieces of feldspar. I have never seen in any mine in Banka so many small glittering scales of mica as is sometimes the case here. This, I think, confirms the hypothesis, that the ore with the composite products of granite found on Banka, is derived from the north. If the current of water is very strong, the heaviest body carried by it, will be deposited right on the direct course, but it is by no means necessary, and it is even improbable, that the specifically lightest body should take the most distant place; indeed, a part of the lightest bodies would be carried back by the least retrograde movement which the stream, from whatever cause, might make, after the heavier bodies had been already deposited. It is however difficult to form an opinion regarding this, because we do not yet know from whence the current of water has taken its origin. Indeed I have been informed that tin is found everywhere to the 23rd degree of north latitude. What inferences can we draw therefore from observations and comparisons of two places, which, lying at a great distance from the source, are only a few degrees separate from each other?

The inhabitants of Malacca are the true Malays. They do not appear to be inferior to the Bankanese, but they surpass them in faithlessness, greediness and thievishness. The police is much less efficient in Malacca than in Banka, notwithstanding the fewer means which exist for that end on the last island.

The beautiful English "free system" is in full operation here, and it is seen to be very unsuited for a colony. Travelling passes are unknown. Heads of campongs, called "Panghulu", are appointed by the Resident, receiving a tax from the inhabitants of the campong, but obedient to no orders. On the journey to Batang Malacca three such heads of different campongs refused to accompany the constable. If they are displaced, as at the above mentioned place was the case some months previously, then they take the field against the new authority, and murder and rob as much as they can. A few weeks before my arrival, a shot was fired at the house of the constable, which lodged in his bed chamber directly above the bed. The ex-Panghulu of Batang Malacca, while I was there, fired at the newly appointed Panghulu and he was further suspected of having murdered two Chinese. While at Ayer Panas

the bodies of some Chinese were brought in who had been surprised and murdered in the mine-house by a band of Malays. Seldom or almost never is a culprit taken, for he flies over the boundaries for a time and afterwards comes back. I make these remarks to show that the English Government has very little to say in these parts, so little indeed, that people were scarcely safe on the highway, that I was always obliged to leave my watch, money and anything of value behind, and that no Chinese or even Malay durst undertake a journey unless armed. The laziness of the inhabitants is shewn by the uncultivated state of the land. It does not even produce sufficient paddy for the natives, much less for the Chinese, who receive all their rice from Arracan. No vegetables are cultivated by the natives, although the beautiful vegetable gardens of the Chinese, show that vegetables thrive excellently. Some fruits grow luxuriantly, particularly the durian, upon which, however, no care is bestowed.

The ground of Malacca is always spoken of as an example of fertility, but although some fruits grow very well there, I am inclined to differ somewhat from this opinion. Against the remark which Governor Butterworth made to me, I have not much to object, viz: that it will generally be seen that in the most fertile country the inhabitants, that is to say, the common people, are the most industrious, because they see the fruits of their labour almost daily increasing.

Because we find thick jungle it is by no means to be concluded, that the soil must be fertile. This I have seen at Banka.

The Sago plant, of which the people seem seldom to make use, the nibong and nepa, grow on the banks of the rivers; the bankuan is seldom to be found in the low valleys, compared with Banka, a proof of what I said before, that the soil in the valleys (especially in swampy places) by no means shows by its outward appearance that there is tin to be had.

Large trees there are still in abundance, especially far in the interior, of which charcoal is prepared for the use of the mines. It is certainly a good sort of wood, but because of the rule, which allows no other sort of wood to be used for the purpose, they have adopted the miserable plan of carbonisation (of which I shall treat hereafter) by which it does not answer so well, as might otherwise be expected.

I shall here say something of two hot water wells, which I shall distinguish by calling one Ayer-panas Kassan and the other Ayer-Panas Sabarn. Both wells are situated in the midst of swampy paddy fields, whose waters are prevented from mixing with the water in the wells by means of convenient frames made for that purpose. According to observations made at different times it has been found that while the air had a temperature of 86° and 75° Fah. the first mentioned well had a temperature of $126\frac{1}{2}^{\circ}$. The water had a sulphuric smell, but was notwithstanding very clear, threw nothing up and tasted somewhat astringently bitter. Here the "terrein" was but a little higher than the level of the sea, about 50 to 80 feet, according to an estimate made with reference to the course of the river and the road. The barometer shewed on many different days an average of 755.9 while the same barometer gave an average of 756.1 at Malacca. The other hot well was found by some observations to have 134° whilst the air had a temperature of 82° . This water was clearer than that of the other and had no smell and a very bitter taste. In Banka I also visited two hot wells, almost under similar circumstances. Full three miles from the shore, in the vicinity of Mount Parmisan, at about 60 feet above the level of the sea, the water rises from a great depth, but was however very clear and with an exceedingly bitter taste, and had 141° Fah. temperature, whilst the air temperature was 87° . About $\frac{3}{4}$ of a mile off the road from Sungi Slan to Pankal Penang, in the direction of south by east, near to the 7th mile, there is a pool of hot water: this also was clear, without smell, and destitute of any taste, and had a temperature of $112\frac{1}{2}^{\circ}$ whilst the air temperature was 81° . I believe that I am the first European who, together with the Administrator Heydeman, have visited this hot well, which is situated in the midst of a jungle which it is almost impossible to penetrate; the well is called Ayer Angat.

Malacca may be said to be very thinly inhabited, but the jungle is full of all kinds of animals. I shall here give the first place to the Jakoons, also called Orang Benuah, as being between man and beast, for I do not wish to place myself, or any European, on a level with them. I have visited them with a constable, in their miserable huts, in the midst of the jungle. I sometimes found them single and sometimes with wife and chil-

dren, without any neighbours. There are however not many to be met with at Malacca.

These people are on the lowest grade, in fact without any education whatever, both sexes go quite naked, with the exception of a small piece of cloth or bark of a tree, tied round their middle. They are perfect heathens, they live on rice when they can get it, otherwise on the leaves of trees and roots, in fact they eat all they can get : apes, spiders, lizards, snakes, &c. &c. and they pass their time chiefly in hunting. They secure their prey by shooting arrows, which are sometimes poisoned, with a blow-pipe (sumpitan.) In the *Journal of the Indian Archipelago* they are more particularly described by a Missionary, who converted some of them to Christianity.*

The *unca*, a large black ape, with a white face, is very common in the jungle. The noise of these animals, whose echo is heard at a considerable distance, especially in the morning, is most unpleasant and is very properly called "a melancholy cry". Other sorts of apes we found plentifully in the jungle, as also tigers. However on all my journeys I have only met one and that at night, in the dark ; I observed but for a moment the glittering of his eyes, when he was about 20 paces from the police thannah. The double and treble paggars round each house and kampong, bear witness that there are many of them, as also the fear of the natives to go anywhere by night without much light, and the making of noises while they pass through the jungle. There are also small bears, tapirs, many pretty varieties of squirrels, and an abundance of birds ; in the rivers and on the seaside are many alligators. I have met with but few snakes and there are no elephants here, although they are found beyond the boundaries.

The buffalo is the only tame animal they have besides poultry, and he is used in the cart and plough &c. &c.

The roads in the interior of Malacca are very bad,—they can scarcely be called roads. To Alor-gaja (Fort Lismore,) and somewhat further up is a military road which was made in the last expedition in 1835, which is kept in repair and improved by about 80 convicts : to Ayer Panas there is also a Government road which is tolerably good, further on to Durian Tungal to the mines,

* See J. J. A. vol. ii. p. 237.

the miners keep them in repair, these are also tolerably good, except for a short distance, chiefly in the Kassang district, which separates the mine roads from Government roads.

On the Ore Layers and the "kong" beneath them.

Respecting the ore layers at Malacca one can give a less positive opinion than about those at Banka, for this simple reason, that but one valley is worked at Malacca whilst in Banka the mines are scattered over nearly the whole island. The original ore layer is generally less deep than in Banka, and is seldom more than 15 or 16 feet. In some places, it appeared to me tolerably rich. It was also mixed with the decomposed matter of the granite and with both fine and coarse pieces of quartz and feldspar and also mica schist (I found no scales of mica mixed with them here) sometimes lying under a white clay, so that herein it differs little from Banka.

A less rich ore layer, above the principal one, such as is often found at Banka, has not come under my observation here: the high sides of the valleys, which at Banka are washed away to the surface, are here seldom worked; I have only seen 2 or 3 small mines of this sort worked, of which I shall say more hereafter. In Banka, after heavy showers of rain, when the streams have washed the roads away, the tin ore is found lying on the surface in hundreds of places, but this I have very seldom observed at Malacca.

The ore layer rests immediately on the "kong" which is certainly an interesting circumstance of similarity with Banka.

Mr Cornelius de Groot who lately arrived in this country, has given a remarkable account of a visit he made to the mines in Cornwall, viz: that in the stream works there, the alluvial ore layer rests on a "terrein" which is similar to the "kong" and that the whole alluvial "terrein" there agrees in many other respects with that of Banka and Malacca. The kong is precisely of the same quality, sometimes yellow, sometimes white or somewhat of a bluish colour, and consists of kaoliën sometimes mixed with fine quartz sand, which is a decomposed product of feldspar. The well known Engineer Wilson has made many trials of this kong, (as I have done for the Government at Banka) hoping that when he had got through the kong, he would find ore beneath and

accordingly make greater profit than the Chinese, but to 18 feet deep (I myself at Banka for want of a good bore, have only gone 14 feet deep) he has, just as at Banka, found nothing but kong mixed with more or less quartz sand.

The Character and Superstition of the Chinese miners.

A Chinese remains a Chinese, in whatever nation or place he may be. This is remarkable, but would not be so censurable, were it not for the extremes to which they carry it. But to be disdainfully headstrong in the keeping up of old customs, which, to their ideas, take a different aspect, under various circumstances, is, according to my views, unpardonable, although it must be acknowledged on the other side, that they have notwithstanding made much progress in civilization. Thus, for instance, the Chinese at Banka will rather take much trouble in transporting their tin with the wheel barrow than carry it on their shoulders, to the great damage of the roads, whilst at the Malacca mines there is not one wheelbarrow to be seen, but the tin, rice and everything else is carried on the shoulders. The roads to the mines are therefore in a much better condition than those on Banka, and can be kept under better repair. The characteristics of the Chinese at the two places, in other respects, much resemble each other.

At Malacca their superstitions, which are the same as on Banka, but carried to a greater excess, were at the beginning a great obstacle to my researches. This is partly to be accounted for by the fact that the presence of an European in the mines was strange and unpleasant to them (whilst at Banka they are accustomed to it.) The Constable, who never goes without six or ten armed men, seldom visits the mines, and then only to counteract gambling, which is such an heinous offence in the eyes of the English, and to confiscate the gambling implements.

The two first times I went unto the mines, no sooner had I come in sight of the miners than they commenced to make a terrible outcry, which increased on our withdrawing and stepping over an ore bander with our shoes on, which is permitted at Banka, only one must be careful not to miss his steps. I had consequently to pursue another course, in order to get some information respecting the mines. I engaged, for rather high wages, an old Chinaman who could speak Malay, (as most of the miners do

not speak Malay) and with only one servant without weapons, but myself armed with a loaded gun, and a pistol hidden in the pocket, in case of possible circumstances. So I went several days, successively, through the mines, being careful to take off my shoes as I entered and only to put them on again on leaving. I also observed that nobody durst to bring any thing of leather into the mines here: I was advised even to leave behind a leathern bag with small shot. They became however soon accustomed to see me talking sometimes with one of their headmen or proprietors, whom I endeavoured through my interpreter to acquaint with the reason of my visit and drinking tea with him, and also going down into the kollongs, which no European had ever done at Malacca. They were also pleased to see that I could leap over their peculiar ladders, as quick as a Chinese; this I had learned at Banka. Now all were ready to assist and show kindness to me: they brought me to the best places in the ore layers, though I had sometimes to suffer for my inquisitiveness, as they allowed me to go to places where I sank into the mud up to my knees, which they seemed to enjoy very much and burst out into laughter. With this, considering the cause, I was well pleased. In the ore layer they showed me some ore which had been washed for me and I was afterwards asked by a Captain China Ahin to be present at the smelting. I consequently attended from the beginning to the end of the sacrifices and feastings which were made previously to the smelting. Several pigs were killed, the meat of which was dressed with Chinese vegetables, which I enjoyed very much, especially as I had had nothing but dry-fish and fowls to my rice for a long time. It seemed as if the sacrifices would have no end, under an ear-deafening firing of crackers and guns. The last ceremony consisted in lighting several hundred small candles in the open air, making obeisance before them and sprinkling them with samshu. The offering was concluded on a certain signal, and now all tried to steal as many of the candles as they could, indeed some had not waited so long, but pilfered them before the ceremony was over. It was incomprehensible to me, how these people could believe that by the application of these means the smelting would turn out better, or that the ore would yield more

tin than it actually contains. But I could forgive them, when I reflected how in the civilized countries of Europe locomotives are sprinkled with holy water and commended to Providence.

The Contract of the Chinese Miners with Government.

The amount of the duty.

The Chinese mine undertaker at Malacca is entirely free, and stands on his own responsibility. If he has chosen a spot which he thinks worth working, he applies to the Government which grants him a surface of 5 acres.

If he has worked this, he can on request, get a similar extension of the ground. He has nothing to pay for the land, but agrees to pay a 10th of the produce of the tin raised from the ground. Thus the mining may go on without any trouble to Government, if it only prevents smuggling. But in this respect some provision has been made by law, by stamping the tin on which the duty has been paid, and this stamp being on the tin raises its value to 80: 9 per cent above the tin which comes from the independent states of the Malay Princes, because the tin which is imported to England without being stamped, has to pay more duty than that which is stamped. But even the smuggling of the tin does not injure the Government, as the tin duty is annually rented out. The following statistics of the produce of the Chinese, and the amount of duty, I obtained at the Resident's office at Malacca :

Years.	Produce. <i>piculs.</i>	Govt. Rent.	How much Duty per picul.
1845-46	231	..	Sp. Drs.
1846-47	491	\$ 1,020	2½
1847-48	2,721	3,344	1½
1848-49	9,962	8,190	0.90
1849-50	13,798	18,120	1½
1850-51	14,000	10,832	0.78

That the rent in 1850-51 is so much less, by no means indicates that there is a fear of getting less produce. On the contrary, it is supposed that it is greater than ever, and that it will likely remain so for some time. The diminution of the duty is to be attributed to a combination among the wealthy Chinese

at Malacca, and that none of the country-born dared to meddle with it.

The Malay tin which is imported into Malacca, but principally into Pulo Pinang and Singapore, is brought in very rude slabs of different sizes, and is always re-smelted. As large quantities are sometimes kept for months in the store-houses at Malacca, it is impossible to give a statement of the the import and export of the produce of the Malay districts which send tin to Malacca. Lukut, one of the principal tin states, which is in the vicinity of Malacca, is said to produce about 6,000 piculs annually. One of the principal merchants in George Town assured me that he alone re-smelted annually about 15,000 piculs of which he disposed, and he thought that he did not over-rate it, if he said that this was about one-half of the whole produce of the Malayan Peninsula. But the point is uncertain, inasmuch as another merchant of the same place, estimated this produce to be no more than 20,000 piculs annually.

The position of the Chinese, and the Chinese Miners. The manner of obtaining them and their wages.

The social mode of living and the prosperity of the miners at Malacca can scarcely be compared with what prevails at Banka. Whilst they are in want of the necessaries of life at Banka, and have scarcely the means of obtaining them, it may be said that at Malacca they live pretty well, and of this the few graves which are to be met with near the mines bear witness. At Banka the mortality is certainly much greater, for there the sides of the roads are full of graves; it is true, however, that the mines there have been worked longer. The good health of the miners and the few sick to be found in the mines also testify in favor of Malacca.

That they generally earn more than those on Banka, may be observed from the fact that at Banka there are so many old mine workers to be found who have worked for a long time, yet they have all their lifetime been unable to lay up so much as to enable them to return home to China. In Malacca scarcely one is to be found who is upwards of forty years of age. They get as much rice as they like from the mine undertaker, and also a daily portion of dried salt fish, and a sufficient quantity of good vegetables, which those carefully cultivated vegetable gardens supply. They also get pork on their occasional feast days and they receive wages

every month. The shops in the mines, in which they can get all sorts of cakes, samshu, fruits and other luxuries, one seeks in vain at Banka. If they only received at Malacca as much wages as is distributed at Banka annually, they would neither be able to gamble, as they do, smoke opium nor treat themselves so often with luxuries.

They work on an average only 8 hours a day, during which time they often rest and talk, of which no notice is taken, as most of the undertakers live in town, where they have their business, and go only now and then to the mines for a day or two, perhaps once a month.

Any one who knows the Chinese and has seen them work, must be convinced that more than any other nation, it is necessary they should have a personal interest in their work. But why then do they not let out the work in the mines by small portions as is done in England, Germany, &c., &c., where some miners for a certain sum make a contract to gather a certain quantity of ore, others again to wash the same. This is impossible at Malacca as well as at Banka for the following reasons:

1st. The ground will not permit small portions to be worked by themselves.

2ndly. Because the miners would always demand advances, which would occasion much unpleasantness, for neither at Malacca nor Banka does money represent rice. Many a poor Chinese would for the sake of a livelihood undertake to work too cheap, and by the time the work was half done his wages would be all spent.

3rdly. When they discovered that they had miscalculated in the contract, they would, with or without advances, leave the work and run away.

By taking these circumstances into consideration, it will appear that the manner in which the mines are worked at Banka by large contracts is certainly the best, as being adopted to the Chinese character.

In Malacca all the miners are paid by the month, but they are divided into three different classes, viz—sinkays, coolies and overseers. By "sinkays" are meant those who have newly arrived from China, who are always engaged for one year by the person who pays their passage money to the Captain of the junk and advances them some money for sending home, and also

agrees to give them pocket money for tobacco and shaving. The passage money differs according to the number of passengers the Captain may have brought with him, or according to the length of the voyage, and also according to the number of sinkays one takes from him. On an average it is about 10 or 11 Drs. and a sinkay gets about \$3 to \$6 a year for the purpose of sending home to China, which he sometimes spends himself in gambling, opium smoking &c. &c. for in these things they are generally expert when they come from China, and about \$6 to \$10 more are needed to provide for his necessary wants. He further receiving the cost of a certain quantity of clothes which is reckoned to amount to about \$1½ to \$1½ per mensem. A sinkay who does not know the work, or is not accustomed to it, and with whom one stands the risk of his getting sick, or of his dying, costs on an average about \$36 to \$40 per annum, or \$3 per mensem. A sinkay becomes a cooly after the expiration of his first year's service. He is then free to leave the mine work any month. His wages now are 3½, 4 to \$4½ per mensem and his food, which on an average, is reckoned \$1 per month.

Those who are careful may save in their second year about \$40 or \$50 and they generally begin to trade, in which I may say they are quite of a similar character with the Jews, or they return with their treasures to China, where they can live for some years on this sum, or they continue to work in the mine till they have laid up more money. These belong to the exceptions.

The overseers in different mines are paid differently, according to the service they render. In a small mine the undertaker sometimes attends himself to this work. In one mine which was worked by 150 men the writer got \$15 per month and the man who provided their food &c. \$10 per month; and the overseer of the work is paid in the same way. They all get their food besides.

The sinkays generally arrive in the month of March or April. It is reckoned that about 2,500 to 3,000 arrive annually with the junks at Malacca. Any one who wants to take a sinkay into his service to assist in a trade or in the mines as a miner, or as a house servant, speaks to the Captain of the junk, and chooses for himself one or as many as he wants; if he agrees with the Captain about the passage money, he then keeps the sinkay in his service during that year for his food, clothes and some dollars.

The bringing of sinkays to Banka can no longer present any difficulty. Not long ago in a conversation with the Resident of Banka I was informed that about one hundred sinkays had lately arrived at Banka from Singapore. Perhaps it would be advantageous under such circumstances, to engage a trustworthy European or Chinese, at Singapore, who for a certain sum per head would procure sinkays for Banka, as otherwise the less suitable or sickly may be thought a good riddance by sending them to Banka.

The Mines at Malacca.

The tin mines at Malacca have only been worked by the Chinese for six or seven years. Before that time, the natives worked them in a most laborious manner, by digging holes and then extracting the ore from the sides as much as possible and then washing it. In the Kassang district there were in 1848, 24 mines, including large and small, in 1849, 15 mines and in 1850, 12. In the Ayer Panas district in 1848, 10; in 1849, 7, and in 1850, 5 mines. All the above mentioned I have visited. In the district Durian Tungal there were in 1848, 13; in 1849, 16 and 1850, 20 mines worked. It has been calculated that in 1848 somewhat less than 2,000 sinkays and coolies were employed, in 1849 full 3,800 and in 1850, 4,000. In the first year most of the workmen were coolies, in the last sinkays.

On an average the mines were worked in 1848 by 30 to 40 men, in 1849 by 80 to 100 and in 1850 by 100 to 120; but if the small mines are included, then in 1850 there would be employed on an average about 70 to 80 men in each mine.

In the Naning district, which also belongs to Malacca, there are at present only about 200 Chinese at work, and none of the natives. A Chinese who was the undertaker there, assured me that up to that time he had worked without any profit, but that tin ore was to be had at many places in the same district (about ten to twelve places he said.) I cannot however put full confidence in what he said, especially as I observed that he was interested in or proprietor of a "Warong" at Alor-Gaga. The more the Chinese could be induced to go in that direction, the more profitable would his "Warong" be, as all those who carry rice and tin must pass that way. This is however only a suspicion of mine, but the

places he pointed out to me, as having tin, had, according to my opinion, no outward appearance of it.

Most of the mines at Malacca consist of "kollong" or "kulit kollong", between which there is very little difference in this district, as no use is made of the water power. I have very seldom seen an actual "kulit" mine and that for the same reason. It is difficult to bring the mines at Malacca into comparison with the carefully laid out mines at Banka, as they are only classified according to the quantity of water they use.—Many times I have asked myself what could be the reason that no water works are made here, which at Banka are managed with so much care and which are of such great service there. I think that probably it is for the four following reasons:

1st—The water works cost much time and labour and the mine undertaker cannot get advances from other capitalists, on a work which is of such an uncertain nature, and his own resources will not allow him to give advances for a year's work or upwards, in preparing great water works which after all would but seldom answer every purpose.

2nd—Government would not allow him to do so. He can only have the command over about 5 acres of ground while a good water-work, that will last for years, very often comprehends a much greater surface.

3rd—The chance of great gain or great loss would thereby be much augmented. If, by the present plan of working, a place turn out to be bad, the undertaker has but to abandon it and look out for another, without any further expenses and losses, than what the working the ground had cost. This is a different matter at Banka where the Government advances the money and provision for all the mines. Here, therefore the profit in the good and the losses in the bad, are to be taken together.

4th—The water-works are required where the mines are at a distance from each other. In the valleys of Blingu and Marawang at Banka this is however not the case, but there the necessity is seen, that under such circumstances there should be a government officer who looks to the constantly arising quarrels between the miners about the water-works. At Malacca there are in the Kassang district 12 to 15 mines in one valley, because where one undertaker prospers, the others follow him. Here then the

erection of good water-works may be reckoned impossible.

A real "kulit" mine, such as there are at Banka, I have not met with here. In a small mine which belongs to the Chinaman Akow, and which is worked by 40 men, there is a greyish earth found lying on the surface, which is carried to the water, for the purpose of getting the tin by washing. Thus the work is done here by hand which on Banka is performed by the well applied strength of the water. This is however a bad mine which only yielded about 10 to 11 piculs of tin per mensem, and was situated near the road from Ayer Panas to Durian Tungal. About 1 mile further I saw 2 or 3 more of such small mines which were worked in the red stony ground, which I have already mentioned. But they did not yield much profit.

The other mines at Malacca must be reckoned among the "kollong" or "kulit kollong" mines. In Malacca they are all called "lobongs." These are dug out as at Banka. According to the ability of the undertaker they vary from 20 to 40 paces in length and breadth at Malacca and are worked with 3 or 4 times as many persons as at Banka. The reason why so many hands are required for the digging of such small mines, whilst larger and in length of time more profitable mines are worked with fewer hands, I ascribed to the want of capital, and their wish to be less exposed to chance. The smelting in a mine takes places when they have finished a "kollong", which is in about three months, and other still poorer undertakers do it every month. The kollongs are generally less deep here than on Banka. The deepest I saw I estimated to be at the utmost about 20 or 22 feet, the ore generally lies about 15 to 18 feet from the surface.

Much care is taken here, I think too much, of the sides of the "kollongs,";—while at Banka the newly felled wood of the jungle is let down at a sloping angle with the branches and leaves placed downwards which serve as a fence and hold-fast; all this is done at Malacca with more or less hewn wood and sometimes with planks.

What I have mentioned as a difficulty in a newly opened mine at Banka, always prevails here. The ground which lies above the ore, is removed by small baskets, in which they have to carry it away. Accordingly there are about 20 or more men

occupied in filling these baskets and about 100 or 150 men go up and down the Chinese ladders and carry this earth to the old "kollong" while the ore is afterwards taken in a similar way to the place where it is washed.

The Tools used in the Mines.

As might have been expected, the tools do not differ from those which are used at Banka. At Malacca the hoe is also the principal instrument; the pick axe serves to prepare more difficult ground for the hoe, and a small axe and parang to cut the wood. Even the baskets which are used for carrying the earth and ore are in every respect like those at Banka. The iron chain pump, which is used in every kollong on Banka and sometimes more than one, is quite of the same construction at Malacca, and this is also the case with the wood chain pump. I saw only two mines at Malacca where the water was pumped out by these instruments, the depth being too great for them to reach the water in the usual way. The means used to work these machines are quite different from those at Banka; there a wheel is turned by the water regularly and sufficiently quick; here it is done by 8 Chinese; this mode of turning generally is irregular and too slow, so that much of the water which the chain pump has already taken up runs back again and the coolies rest themselves for some minutes every $\frac{1}{2}$ of an hour. The turning of this wheel is certainly the most difficult part of the work in the mines; they have to sit on a round piece of wood, and hold on to another and must always be stepping forwards, otherwise the block on which the wheel turns might break their legs. Such a wheel, which is seldom used, I saw at work in a very small "kollong" which belonged to the Captain China Ahin, who had 250 men employed in three very small "kollongs"; the other kollongs were at the utmost about 12 feet deep; from these the water is taken out by pails which are drawn up and down on a beam; generally 5 to 6 men are occupied with this the whole day. This water is of no use for the washing of the ore but is thrown into a canal and runs down the valley.

Thus the Chinese at Malacca have greater daily expenses than those at Banka in removing the water, but they have less preparatory expenses and consequently less risk of losing large sums of money.

About the Washing.

Without some water-course the mine process cannot be accomplished, and it may be said to be impossible to cleanse the tin ore from the sand which is mixed with it without water. But with some forethought a sufficient quantity of water may easily be supplied without extensive water-works, especially if the ground is in a favorable situation. Thus in the Kassang district a small stream is chiefly used, which has its rise in the Pondok Compass mountain. All they have to do is to make a small sluice or dam by which they may lead the water in any direction, even into another valley or marsh, and when there is occasion, they may open or shut their sluice and lead the water in whatever direction they may wish to make their ore "bandar". The supply of water from this rivulet seldom fails and I must confess, that after dry weather for about three weeks, there was an abundance of water running down in it. There exists another remedy which may often be applied when water is wanting. As the valleys are generally not worked in very broad places, and as they all work upwards from the lowest part of the valleys, they require therefore to dam above the "Kollong" to prevent the water running down, by which dam and the sides of the valley is formed a small pool, the water of which is increased by the falling of rain &c. The size of this pool depends on the extent of the "ground" which they have to work. This water is also generally used for the washing, and is very valuable to mines which have no other water near at hand.

In the mode of washing the ore at Malacca there is some difference from that followed at Banka. The quantity of water is generally less at the former than at the latter place, and therefore what is wanting in the quantity must be supplied by the force of the water, for which purpose the water "leaders" are by no means broader, but shorter and more slanting. That many a grain of tin ore is thereby lost, must be obvious; the more industrious of the miners, therefore, in their leisure hours wash the earth again which has been washed down by the washing "bandar", and the tin ore they get there generally repays their trouble.

The smelting process, the furnace, charcoal and bellows at Malacca.

The smelting process is quite the same as that of Banka. The

furnace is filled in a similar manner and the same sort of tools are used by the smelting workman; the tin is cast in blocks of half a picul each by the smelter, who receives 1 dollar each night and his assistant half a dollar. This smelter is not so constantly at work at the hole through which the tin flows, pushing in and pulling out a stick and opening the hole, as at Banka. By this it is explainable that one workman with a cooly can do the work. Where the ore is rich and well washed about 45 to 55 small slabs are obtained per night. At half past 5 o'clock P. M. the smelting commences in the furnace, and lasts to 6 or 7 o'clock A. M. In one thing of little consequence there is some difference from Banka, viz. at the half hour, one or two handfuls of kitchen salt are thrown upon the burning coals. I believe this to be more a custom, as through the soda in the salt, the fire burns for a while with a glimmering yellow flame, than productive of good in the smelting.

The furnaces are entirely like those of Banka; inside as large but outside somewhat smaller. At Malacca they are made of well burnt bricks (which are fire-proof) formed of a reddish clay found near the town of Malacca. The materials cost somewhat more at Malacca, but the wages for making them are less than at Banka, where, I think, they cost about \$10 to \$15 more per furnace, according to circumstances. The smelting pipes are made of the same sort of clay. The charcoal is of a much worse description than that generally used on Banka, and as the sort of wood from which it is made is of the best quality, it may be ascribed to the imperfect manner of cooling, that every good quality is not found in it. The charcoal is sent to the mines by private Chinese for \$ $\frac{1}{2}$ per picul, of which about 45 to 50 piculs are used in a night. When these charcoal burners meet with a good tree at a convenient place in the jungle they cut it down, cut the small branches off and after some time they set it on fire at that side from which the wind blows, and then they cover the half burning and half smoking part with sand, not allowing the necessary vent holes to remain open. Thus much wood is consumed but bad charcoal produced. But no private Chinese can undertake to make regular woodpiles like those at Banka, for months are required for the felling of the necessary trees and making the wood of an equal length and thickness,

and the cooling requires about 4 to 6 weeks. At Banka a registered coal-burner gets advances of rice and salt from the government. At Malacca, not even the miners give advances in food or otherwise, as the coal-burners would certainly run away, should their agreement not answer their expectations. Therefore they must manufacture charcoal as quick as possible in order to get money for daily use. The bellows differ in nothing, according to my opinion, from those at Banka. They are pulled by two sets of men, consisting of five each, of whom each gets a silver rupee per night. For what reason they employ 4 men more here at night than at Banka I know not, but I imagine it is because in Banka they pull always by full blows, here they give two full blows and then give two quarter blows; and then again two full blows &c. &c.

If we reckon that from one night's smelting, 24 piculs of tin are obtained, the extra cost on these 24 piculs besides tear and wear and buildings &c. &c. is \$30, or on each picul \$1 $\frac{1}{2}$. The coals and wages at Banka cost only \$18 to 19 per night; and therefore the picul costs there about $\frac{2}{3}$ of a dollar.

The Tin Ore, the quantity of Tin procured from the Ore; and the Tin of Malacca.

The three sorts of tin ore which are found at Banka, are also met with here, except that the best sort is in less quantity here than at Banka. It also appears to me that the best sort at Malacca, taken in the lump, has not the highly valued red reflection like that at Banka. Rather rough black tin ore may represent the principal ore of Malacca, although the fine "Koppang" ore cannot be wanting there, but it is not worked.

It is difficult to say how much per cent the tin ore at Malacca produces. The principal renter of the tin duty informed me at the town of Malacca that from 100 catties of ore about 50 to 55 catties of tin and sometimes also, though very seldom, as much as 70 catties are obtained. Taking the average of this statement, it gives 57 $\frac{1}{2}$ per cent tin. Certainly but very little reliance can be placed on these data for the following reason. They smelt on several successive nights, as long as they have ore ready, and when this smelting is over the dross which still contains much metal is pounded and washed. This they smelt in iron pots on a common

fire into 2 or 3 cakes, which are put along with the other tin at the next smelting.

In the mine of the Captain Akin, where I saw the smelting, I was assured that no more than 55 per cent tin was obtained from the ore, which surprized me as the ore looked very well. I found all further enquiries respecting this question useless, as no reliable information was to be had.

The tin of Malacca, which is also called "old tin", is not so clean and is of less value than that of Banka. The price of the tin on which duty had been paid, was in June at Malacca \$16 to \$16½.

It is plain, however, some more profit is made on it by transporting it to Singapore and Pulo Pinang, from which places it is shipped for Europe and America (for I believe there is no merchant resident at Malacca who does business with those countries.) The tin which goes to China is sent direct, of which they also make their profit, as a matter of course. At the English exchange the Malacca tin sells generally from 2 to 4 shillings less than the tin from Banka. A good proof of the Banka tin being cleaner than that from Malacca is that the tin from Banka is sought for, to be resmelted with the tin which the mines of Cornwall produce, the value of which is thereby enhanced. However I do not agree in the assertion which has been made that the tin from Banka is 10 per cent better than that from Malacca, and even 15 per cent better than the Malay tin from Pera; others say, that it has only 1 to 1½ per cent of foreign substances.

On Transporting the Tin.

As mentioned already, the tin is carried from the mines to the nearest landing place on the river; this is done by the miners themselves, except in the Naning mines, where Malays are employed. Here the distance from the mines to the landing place is about 7 miles. The Chinese who carry it from the mines to Alor-gaja, receive for two small slabs, each of which weighs about 40 Amst. lbs, 20 cents of a dollar, which is equal to about ⅓ of a dollar per picul. From the landing place at Alor-gaja boats take the slabs for a similar price to Malacca, and therefore the transporting from the mine to the town of Malacca costs nearly £2½ (copper) per picul. If the tin from the

Naning mines were carried to the town, the picul would cost full f^4 (copper). If the natives were to bring the tin from the Kassang mines to the landing place at Ayer Panas, it is calculated that each picul would cost for that distance of 4 miles fifteen cents per mile. At the landing place the tin is put in small boats, which take about 50 of the slabs, and on the return from Malacca bring rice and other necessities. I have gone along the whole river, in one of these boats, for the purpose of having a sight of all that was to be seen. The river may be, owing to its winding course, about 16 to 18 miles in length from here to the sea, then there are three miles more by sea before you can reach the town. It took me full 8 hours to make this trip. At the landing place, the breadth of the river is said to be about 3 "meters," and at high water its depth may be about $2\frac{1}{2}$ to 3 feet, the boats when loaded draw about 1 to $1\frac{1}{2}$ feet, and are managed by two natives. For each picul of tin or rice the miners pay ten cents for the whole voyage.

The costs of production of the Tin at Malacca.

The difficulties of calculating the expenses of private mine undertakers at Malacca are not less than on Banka, there are so many circumstances which make this impossible and he will often be puzzled himself to ascertain the true expenditure of his undertaking. I could not therefore place much confidence on the answers I got from the mine undertakers and writers, when I asked them how much profit they calculated to have made last year. They avoided the question altogether or gave me a very indefinite answer. I will however state here the result of my own enquiries and compare them with the information I got from others.

In a mine belonging to Akow there were 40 men at work and the mine produced about 10 to 16 piculs of tin per mensem. This gives an average of about 156 piculs annually or to each workman 4 piculs in the year.

One of the best mines at Malacca belonged to Attin; last year with 250 men, he produced 2,200 piculs of tin.

A mine which belongs to Atoé, which I also visited, worked with 150 men, produced 1,400 to 1,600 piculs of smelted tin yearly, or on an average 10 piculs per man. The proprietor told me that he had only \$2,000 net yearly profit from the mines.

According to him therefore the costs must be remarkably high; I question however the correctness of the number of piculs of tin.

Further, I have been in a mine which belongs to Abon, who works with 300 men and gets annually 2,000 to 2,400 piculs of tin, or on an average full 7 piculs per man—he reckoned upon getting about \$3,000 to \$4,000 net profit in the year.

Lastly, amongst the mines from which I could get information, may also be mentioned a small mine which belongs to Aman, who works with only 30 men and gets about 11 to 12 piculs of tin per mensem, or $4\frac{1}{2}$ piculs per man annually. He told me that he was poor, and that he could only supply his daily wants from the profit he got from his mine. He worked on in hope of soon finding a better bed of ore. Not far from this mine I saw a place where the ruins of a miner's house stood, and it was also observable that the ground had been worked and that a mine had been commenced but abandoned. A Chinese undertaker had lost here full \$600 in half a year; a similar case I saw near Campong Pondok Campas.

The Chinese who works in the Naning district assured me in the presence of the Resident of Malacca, that he lost annually by his mining. He ascribed this not to the ground but to the want of capital; the man appeared to me, however, the last to be believed of all I have met with.

From all the information which I obtained with great difficulty, I could only learn that in some mines $4\frac{1}{2}$ piculs of tin per man are annually required, and in others as many as 7 piculs, to cover all the expenses, which taken on an average amount to about \$80 per man. In Banka one man produces 10 piculs at least.

The result of my enquiries seems to agree very little with what the farmer of the tin duty told me at Malacca. This man is not a mine undertaker, but he assured me that according to the information he had, that there was but one mine which produced the picul of tin for \$10, and that the mine which produced the picul for \$12 did very well and one whose outlay was \$14 had still profit, while there were many who did not produce it for less than \$15 and this without the expenses of transport. I do not agree with the engineer Wilson who assured me that there would be more money lost than gained by various undertakers.

20th April, 1851.

POLITICAL AND COMMERCIAL CONSIDERATIONS RELATIVE
TO THE MALAYAN PENINSULA AND THE BRITISH SETTLE-
MENTS IN THE STRAITS OF MALACCA.*

CONSIDERATIONS ON THE SIAMESE CONQUEST OF QUEDAH AND PERAK.

THE intelligence of a sudden invasion by a large Siamese force from Ligore, of the territories of the king of Quedah, the old ally of the British Government, which reached Prince of Wales Island in November 1821, and the various rumours which prevailed regarding the ulterior objects of the Siamese army, spread terror throughout the island, and, although there was a considerable Military force at the presidency, the alarms of the native population were difficult to be appeased. Many of the wealthy inhabitants buried and concealed their valuable property, while others made preparations for conveying it away to other British settlements. The supplies of grain, cattle and poultry, from the Quedah country, on which Pinang had so long chiefly depended, were suddenly withheld, and there was considerable distress amongst the poorer classes, by the increased price of provisions.

The prompt and humane measures of Government, however, not only for quieting the fears of the inhabitants, and allaying all apprehensions of an attack by the Siamese, but for obtaining supplies of grain from Bengal and other quarters; while in the mean time, large issues of rice were made from the Hon'ble Company's stores, which was distributed to the poorer classes at a moderate price, prevented much distress, which must have otherwise ensued, and speedily restored greater confidence in the strength and resources of the Government, which could command ample aid in case of need.

* A work under the above title was compiled in the year 1824, by the late Mr John Anderson, of the Pinang Civil Service, then Secretary to Government, at the instance and under the supervision of Mr Fullerton, Governor of the Straits Settlements. Only one hundred copies were printed, and of these a very limited number had been circulated, when for some reason or other they were recalled, and so strictly was the suppression of the work enforced, that Mr Anderson was required to give his word of honor that he had not retained a single copy. One copy, however, seems to have escaped notice and fell into the hands of the late Mr Carnegie, who very justly deeming it a work of great interest in connection with the history of the Malayan Peninsula, in 1835 reprinted it in the *Singapore Chronicle*, which he then conducted. After Mr Carnegie's death this copy was sold at auction for 30 dollars and, we believe, sent to England. The *Chronicle* has now become nearly as rare as Mr Anderson's work, and as the latter contains much information not to be found elsewhere, we propose to republish the whole or the greater part of it in this Journal.—ED.

For a better understanding of this unexpected event, it will be proper to take a short review of the circumstances connected with it. On Sunday the 12th of November 1821, about noon, a large fleet of prows full of Siamese, was observed standing into the Quedah river, coming in the direction from Trang, a large river to the Northward, where the armament had been equipped. The Pangulu or commandant of the fort instantly sent notice of its approach to the Bindahara or General of the Quedah Army and the Laksamana or High Admiral, who were a short distance up the river, and having some apprehensions of treachery, prepared the guns to bear upon the prows, waiting only for the orders of the Bindahara to fire upon them. The General, however, who was taken by surprise, did not choose to authorize this, and determined to employ measures of pacification in the first instance.

The arrival of the Siamese was so sudden, that the Malayan chiefs had time to assemble only a few of their dependents, with whom they proceeded to the wharf or public landing place, which is about one hundred and fifty yards beyond the fort, and which was surrounded by the Siamese fleet, well armed. The Bindahara, Laksamana, Tamungong, and a few of the Quedah chiefs were seated on the covered wharf, and the Siamese ascended in a large body with muskets, spears and other warlike weapons in their hands. The Bindahara interrogated them as to the object of their visit, and was informed that they wanted rice, being about to attack the Burmahs. The General promised them an immediate supply; but while the conversation was going on, the Siamese had assembled a large party ashore, and surrounded the wharf; they now threw off the mask and told the Quedah chiefs, they had come to seize them and they must submit to be bound. The Bindahara and Laksamana exclaimed, with one accord, "we are betrayed, let us attack them furiously," and instantly drawing their krisses, plunged them into the Siamese who stood nearest them. A general battle now ensued.

The venerable Laksamana and Tamungong, who used to boast that he was invulnerable, with several other chiefs, were soon dispatched, the Bindahara was disarmed and bound, and their men, dispirited and panic struck by the loss of their leaders, fled in all directions, pursued by the Siamese, who butchered them in great numbers and put them to death by means the most cruel

and revolting to human nature. These operations being observed from the fort, a few guns were now brought to bear upon the Siamese vessels, and two or three were sunk. The Siamese then proceeded to set fire to some of the houses, previously dragging out any of the men who had taken refuge in them, and torturing them to death, pillaging the houses of all their contents that were of any value; and they seized, indiscriminately, all the prows and vessels in the river at the time, amongst which were several small trading boats from Pinang.

Having, after a slight opposition, possessed themselves of the fort, which was garrisoned principally by a few Bengal and Chuliah sepoys, they dispatched a party immediately to the Kwala Mirbow, a large river to the southward, and nearly in sight of Pinang fort. On the following day, Monday, they entered the Mirbow and met with a slight and ineffectual opposition from a small battery near the mouth of the river, which kept them in check for a short time, and allowed an opportunity for the intelligence of the approach of a hostile fleet to reach the king of Quedah, who was residing in floating houses a few miles further up,—where he was forming a new settlement and cutting a canal from that river to the Muda, another large river to the southward, which forms the northern boundary of the British territories on the main.

Hearing that the Siamese force was ascending the river, and having only a very few adherents at hand, he hurried off in the greatest consternation with all his wives and children, and mounting them together with his most valuable ornaments, and as many dollars as he could collect upon several elephants, which were fortunately at hand, he proceeded across the jungles, in a direction towards the Prye river, within the territory of the Honorable Company. The king left a large brig and a schooner, on board of which was a large amount of treasure which fell into the hands of the captors. Numbers of his attendants who fled with him, but were not mounted upon elephants, perished from fatigue and hunger in the woods, and particularly, several of his most respectable and venerable chiefs.

The king himself, after five days of severe fatigue and exposure, during which time he separated from several of his elephants, and much of his valuable property, which was no doubt purposely conveyed away in a different direction by his own faithless

attendants, to whom he had intrusted it, arrived at a place called Kota, the residence of his brother Tuanko Solyman, up the Prye river: where embarking all his followers and property on board four or five prows he descended to the mouth of the river, and solicited the protection of the British government.

The Governor of Prince of Wales Island, with that humanity and consideration which was due to an ally, instantly granted the protection sought for, and the King was not only provided with suitable accommodations, but a strong guard of Sepoys was posted at his residence, to prevent any attempt to carry him off by force, and he was granted an allowance adequate to maintain himself and numerous family comfortably. His Majesty has remained ever since, in the enjoyment of these advantages, and supports his trials with becoming fortitude and dignity.

On the morning after the King crossed over from Prye, a fleet of fourteen or fifteen Siamese prows was observed standing close along shore in pursuit of His Majesty, and they had actually the audacity to attempt to enter the Prye river, where they believed the King still was. The fleet was driven back by two of the Hon'ble Company's Cruisers, which had strict orders afterwards to prevent any Siamese vessels from coming near the harbour, without previous examination and permission. A few days after this occurrence, the Rajah of Ligore sent a letter to the Governor, couched in very haughty and disrespectful terms, desiring the king of Quedah to be delivered up to him, a demand which was met by a dignified refusal, accompanied by a salutary admonition as to the style of future correspondence with the representative of the British Government. Some of the Siamese troops having pursued the Malays into the territory of the Hon'ble Company, near the Kwala Muda, the Government lost no time in despatching a company of Sepoys, under an active officer, Captain Crooke of the 20th Regt., for the purpose of expelling such daring intruders, and affording protection to such emigrants as might seek shelter under the British flag and escape the persecution of relentless enemy. The temperate, but at the same time resolute, conduct of that officer in supporting the dignity of British government, and in seizing and disarming a party of Siamese who made an encroachment upon Province Wellesley, was no doubt calculated to evince to the Siamese Authorities, the power and deter-

mination of the British Government to oppose such proceedings, and the moderation of the measures adopted in the first instance.

The natives from Quedah, and the traders from other countries whose vessels had been seized, and who had been deprived of all their property, now flocked to Pinang in thousands, many in small canoes formed of a tree hollowed out. It is scarcely possible to conceive the state of distress and misery in which hundreds of these poor fugitives landed at Pinang; men, women and children crowded together for several days in small boats, without any provisions and scarcely any clothing; most of them escaped clandestinely, and many boats which were overloaded with passengers were lost; the emigrants finding a relief from their suffering in a watery grave. Many Malays who were detected in the attempt to escape, were put to death, and the wives and daughters were forcibly dragged from their husbands and fathers and ravished by the Siamese soldiery. The mode of execution was horrible in the extreme; the men being tied up for the most trifling offence, and frequently upon mere suspicion, their arms extended with bamboos; when the executioner, with a ponderous instrument split them right down from the crown of the head, and their mangled carcases were thrown into the river for the alligators to devour.

The King of Quedah's second and favourite son, Tuanko Yakoob, attempted to escape like the rest, but was pursued and taken, and has since been sent in bonds from Quedah to Siam. The Bindahara or Prime Minister, after being kept in chains a long time at Quedah and deceived with hopes of liberation, for which the Pinang Government earnestly interceded with the Ligore Chiefs, was carried away and poisoned on the road to Sangora. It is impossible to calculate the number of Malays who have perished by the swords of the Siamese, by the loss of prowls on their way to Pinang and other places, and by famine and fatigue in the woods. Every aid was administered to the refugees who fled to Pinang, and beneficial regulations subsequently made by government for affording them the means of livelihood. It is proper in this place, to notice the highly creditable conduct of the late Governor of Malacca, Mr Timmerman Tyssen, who no sooner hearing of the conquest of Quedah, and having received exaggerated accounts of the Siamese force, and the probability of an attack upon Pinang, than he dispatched one of His Netherland Majesty's Frigates, which was lying in Malacca roads at the time,

with the handsome offer of co-operation, in case of the Siamese engaging in hostilities, and even the chiefs of some of the surrounding Malayan States were not backward in making respectful tenders of all the aid their limited means would admit of, which were suitably acknowledged by the Government of Pinang. Such was the opinion of all the neighbouring Malayan States of the treachery and injustice of the Siamese in attacking Quedah, and such their apprehension of becoming themselves the victims of their rapacity, that they were eager to employ their utmost efforts to expel the Siamese from Quedah, and looked up, with full confidence, to the British Government supporting its old ally.

Having effected the complete subjugation of Quedah, and possessed himself of the country, the Rajah of Ligure next turned his attention to one of its principal dependencies, the Lancavy Islands, and fitted out a strong and well equipped expedition, which proceeded to the principal Island, which, independent of possessing a fixed population of between three and four thousand souls, had received a large accession by emigrants from Quedah. Here too, commenced a scene of death and desolation, almost exceeding credibility. The men were murdered, and the women and female children carried off to Quedah, while the male children were either put to death, or left to perish. That fine Island, from which large supplies were derived, is now nearly depopulated, and such of the male population as did escape, driven from their homes and bereaved of their families, have been carrying on a predatory warfare both with the Siamese and peaceable traders close to Prince of Wales Island. Some of them have settled in Province Wellesley and are employed as cultivators.

Several badly planned and ineffectual attempts have, at different times, been made by small and unorganized bodies of the King of Quedah's adherents in the country to cut off the Siamese garrison at Quedah; but these have all been followed by the most disastrous results; not only by the destruction of the assailants, but by increased persecution towards the remaining Malayan inhabitants. The King himself, for some time, was anxious to have made an effort to regain his country, in concert with some native powers which had promised him aid in vessels and men; but he was dissuaded from so perilous and certainly doubtful an enterprise by those who were interested in his cause, and who appre-

hended his certain overthrow and destruction from such an attempt. There is no doubt, the Siamese were too powerful and too well prepared for any such ill arranged expedition, as it could have been within the compass of the Quedah Rajah's means to have brought against them, to have had any chance of success ; and it would have been inconsistent with the professed neutrality of the British Government to have permitted any equipments or warlike preparations within its ports ; the more particularly so, as a mission had just proceeded to Siam from the Governor General of India.

However much disposed the Pinang Government might have been, on the first blush of the affair, to have stopped such proceedings on the part of the Siamese, and to have checked such ambitious and unwarrantable aggression ; however consistent and politic it might have been, to have treated the Ligorean Troops as a predatory horde, and expelled them, at once, from the territories of an old and faithful ally of the British Government ; the Mission from the Supreme Government of Bengal to the Court of Siam, and the probable evil consequences of an immediate rupture, were considerations which could not fail to embarrass the Pinang Government and render it necessary to deliberate well before it embarked in any measures of active hostility ; while the disposable force on the Island, although fully adequate to the safe guardianship and protection of the place, and sufficient to repel any force that the Siamese could possibly bring against it, was yet insufficient for prosecuting a vigorous war, or maintaining its conquests against the recruited legions which the Siamese power could have transported with facility, ere reinforcements could have arrived from other parts of India. Under all these circumstances, the policy of suspending hostilities was manifest, and it was deemed proper to await the orders of the superior and controuling authorities.

But there was a more urgent necessity than even the foregoing considerations dictated, of not acting without the consent of the Supreme Government, as that authority has always declined sanctioning any interference with Siam and Quedah, in the innumerable references which have been made from the chiefs of the Settlement of Pinang since Captain Light first took possession, during all which long period of 35 years, the King of Quedah has been subject to

incessant alarm and apprehension from the Siamese, and suffered all the oppression they could inflict, without actually possessing themselves of any part of his dominions. The Supreme Government admitting that Quedah has always been tributary to Siam, has ever objected to any interference that would be likely to excite a collision with the haughty power of Siam, which it appeared to be the object of the British Government to conciliate. It was expected that the Mission would have produced some results advantageous to the interests of our Ally, by the mediation of the Ambassador, and that, at all events the affairs of Quedah would have been settled upon a proper footing. So far however, from any of these most desirable objects which were contemplated being attained, the Siamese authorities not only assumed a tone of insolence and evasion to all the reasonable propositions of the ambassador, but signified their expectation that the king of Quedah should be delivered up to them; and the obstacles which existed to a free commercial intercourse have not been removed.

The king of Ligore not satisfied with the conquest of Quedah and grasping at more extended dominions, under pretence of conveying some messengers from Perak, who had carried the *Boonga Mas* or token of homage to Quedah, requested permission for a fleet to pass through Pinang harbour, which being conducted beyond the boundaries by a cruizer, proceeded to Perak, and after a short struggle, his forces also possessed themselves of that country, which had been reduced by the Quedah forces in 1818, by the orders of Siam, in consequence of a refusal to send the *Boonga Mas*; while the history of that oppressed state affords no instance of such a demand ever having been made by Siam, or complied with before.

It was understood that Salangore, a settlement originally peopled by Buggese, was to be the next place of attack; but the timely preparations and commanding and determined posture of defence assumed by the Rajah of that country, deterred the Siamese for a time, from making the attempt; if we are not misinformed, however, extensive preparations have been long in progress at Trang, for carrying these designs into full effect. There is little doubt, the Siamese contemplate the total overthrow and subjugation of all the Malayan States on the Peninsula, and the subversion of the Mahomedan religion. Patani and Tringano, the principal states on the other side of the Peninsula have long suffered from

the Siamese oppressions, and, as it is generally believed the Rajah Muda or Brother of the Emperor of Siam is about to establish himself at Trang, and the Rajah of Ligore has actually proceeded to convey him thither from the capital, Bangkok; there are no doubt, some schemes in embryo, which it is difficult to conjecture and impossible to foresee.

During the two years that have elapsed since Quedah fell into the hands of the Siamese, the supplies of provisions to Pinang have been very scanty, and every thing has been prodigiously enhanced in price. The Government of Prince of Wales Island, seeing but little prospect of a speedy termination of the disturbances at Quedah, or a satisfactory settlement of affairs, and anxious to provide for the numerous fugitives who had voluntarily placed themselves under its protection, and become British subjects, considered it advisable to appoint a Resident at Province Wellesley, who had authority to portion out small tracts of land to such families as might wish to settle permanently and cultivate; to make small advances of cash repayable within a certain period, in grain, and to give every encouragement to the cultivation of paddy, and the rearing of cattle and poultry, by which, it was hoped, the island would, ere long, be plentifully supplied with provisions. The population there has had a large increase by the emigrants from Quedah, and there is every probability, that in time, under good management, and by a conciliatory line of conduct towards the inhabitants, considerable supplies may be obtained from that source. As, yet however, they have scarcely exceeded what was obtained from thence before the capture of Quedah; the new settlers being, for the most part, indolent and undetermined in their movements.

The longer experience we have had of the Siamese Government of Quedah, the less do they appear to evince any desire to conciliate the British Government. Several atrocious murders have been perpetrated in the Quedah river upon some inoffensive and peaceable native traders, subjects of the English Government of Pinang, and the whole of their property plundered, as has been fully ascertained, by the connivance, if not the direct authority, of some of the principal Siamese chiefs; nor have these authorities made any atonement for such outrages, which the British Government has a right to expect, and which it will doubtless enforce.

In short, instead of adopting a mild, conciliatory system of administration, calculated to engage the affections of the inhabitants whose country has been wrested from them, there has been one continued scene of the most brutal rapine and carnage, oppression and devastation that can possibly be imagined. British subjects, with whom, it might have been supposed, they would have had some dread to interfere, have been cruelly put to death, and the British Government not only slighted and insulted by evasive replies and frivolous delays, but the population of the presidency kept in a constant state of alarm and agitation by daily reports of large armaments destined to make an attempt upon the island, fitting out at Traang, and other rivers. How improbable soever such designs may be, still it is essential that the fears of the native inhabitants should be appeased to avert the injury which the commerce of the island would necessarily sustain.

In advocating the cause of the injured and oppressed nation of Quedah, as I humbly profess to do, I may be permitted to notice, that the records, of the Pinang Government from 1785 to 1790 furnish ample evidence; first, that the right of interference of Siam with Quedah was not acknowledged at the period of the cession of Pulo Pinang to the British Government; secondly, that that cession was made upon the express condition of succour and protection against a powerful, relentless and overbearing enemy; thirdly, that we accepted the grant upon this understanding; that is, without making any objections to the proposals of the Rajah of Quedah, before possession was taken. And lastly, that we are bound by considerations of philanthropy and humanity to extend our aid to an oppressed monarch, who has long been our friend and ally, and to a defenceless multitude groaning under the most bitter tyranny, and suffering all the horrors and calamities which a ferocious enemy can inflict.

Their religion is violated, their wives and children are forcibly dragged from them; the aged parent and the helpless babe are butchered by these ruthless and sanguinary barbarians, who consider them as useless appendages, and the most wanton murders perpetrated by means the most cruel and painful to the wretched victims, are of daily occurrence. Surely, a powerful nation which has ever been foremost to dispense justice and to succour the oppressed, will not suffer such acts of horror and cruelty at its

very door, without employing its power and influence to check such enormities. The history of our possessions in Continental India, affords numberless instances of our interference on many far less pressing occasions, and shall we not extend our fostering protection to our friend and ally; to the acknowledged sovereign of Quedah whose father ceded to us one of our four presidencies, who has been overcome by an ambitious and powerful neighbour?

When we add to the many powerful and irresistible inducements for our interference, considerations of a more interested nature as regards our own prosperity and stability in this quarter, and look to the baneful effects of the Siamese conquest of Quedah, in the stoppage of our accustomed supplies, to the distress of our inhabitants by the increased price of provisions, to the almost entire stagnation of trade, from that quarter; when we advert to the indignities and cruelties inflicted upon quiet and peaceable British subjects who ventured to continue their commercial pursuits with Quedah; when we consider the state of disorder and confusion around us, and that piracy is daily increasing (the natural result of thousands of Malays being driven from their homes) and that a predatory warfare is carrying on in our immediate vicinity; nay, sometimes within sight of our harbour; when we know that many of our own unoffending subjects have suffered in common with the enemy; when we reflect on the tone of insolence and contempt hitherto assumed by the haughty ruler of Siam; the presumption even of the lowest officers of this proud despot, with whom we have had correspondence or connexion; when we remember the uncordial reception of our mission, and the indignities and corporal punishment inflicted upon two defenceless Englishmen in the palace of the Emperor, for a trifling breach of their peculiar laws and ignorance of the customs of the country; when we consider, in short, the unsociable propensities, if I may so term it, of the Siamese power, and its evident disinclination to treat with us upon a footing of equality; or to conciliate the friendship and good will of a nation which has the power to crush it in a moment; when we observe that the trade of the country is by no means equal to the exaggerated statements of its importance and value, while we have the example in the history of our transactions with the no less imperious power of China, that trade though it may be interrupted for a time, will eventually flourish

more, after the establishment of a proper understanding and an occasional contention for just rights and privileges, and when, moreover, we observe that the eyes of all the surrounding states are upon us, and expect us, not only to succour the king of Quedah, our ancient ally, but to oppose a barrier between them against the unjustifiable encroachments of the Siamese, we shall surely have incentives enough for taking a vigorous part in the defence of the Quedah kingdom.

Do we admit the principle that the Siamese have a right to subjugate all the Malay states on this side the Peninsula, viz: Perak and Salangore, which have with greater inaccuracy been stated as always tributary to Siam, we, in fact, give encouragement to the total destruction and annihilation of the valuable trade which forms the principal export of this settlement, (Pinang) of the revenues of the Honorable Company, and of the means of support and livelihood of our numerous and industrious subjects. The Emperor of Siam may in many respects, be compared to the former ambitious ruler of France, and if his projects are not nipped in the bud, there is no foretelling what the result will be, if the fruit is allowed to attain maturity.

Various are the opinions which have prevailed relative to the tributary dependance of Quedah upon Siam, and it shall be my endeavour, as far as the paucity of materials will admit of, to deduce, from a careful examination and comparison of different authorities, evidence to shew, that Quedah has submitted only to a certain limited dependance upon Siam, in no way derogating from her Sovereignty, still retaining to herself the right of administering her own Government according to her own laws and institutions, and that consequently the subjugation of the country is an act of unprovoked aggression, which it is the policy of the British Government, to resent. " His Highness of Quedah (as justly remarked by the Honorable the Governor of Pinang in December 1821) has certainly much misgoverned his kingdom, yet his long close connexion with the British Government has given us a far greater influence over his mind and character, than what we can expect to acquire with regard to the chief who may be placed on the throne of Quedah by the Siamese. It appears to me, that the British Government should not hesitate to endeavour to obtain the restoration of our Ally to the throne of his ances-

tors, because it is undoubted policy to prevent the near approach of the Siamese influence and power, and because his restoration, if effected by our means, would redound highly to the honor and reputation of the British character among the surrounding Malay-States"; to which may be added the opinion of his respected predecessor, the late Colonel John Alexander Bannerman, who, in allusion to the difficulties in which the King of Quedah was involved in 1818, by the demands of the Siamese, observes, "Independent of the cause of humanity which has never been disregarded by the British Government or our Honorable Employers, there are many other motives that strongly bias me at this juncture in favor of His Majesty of Quedah's restoration. There is no doubt but that our commerce with the neighbouring Malay States is much impeded by the dissensions subsisting between these Princes, and the trade with Perak in particular, from which our revenues once derived great benefit, is now almost wholly suspended."

The following extract from the despatch to the Supreme Government, dated 28th November, 1821, from the Pinang Government, clearly shews the opinion entertained of the necessity for the removal of the Siamese from Quedah. "In apprizing your Excellency of the present state of affairs at Quedah, it cannot be considered unimportant to observe that unless some arrangements are made by which the Siamese power may be withdrawn from our immediate neighbourhood, there will be an evident necessity for increasing our disposeable force at this Presidency, in view to secure against that arrogant and formidable power, the tranquillity of the Settlement, and the freedom of its trade with the northern ports. Hitherto there has been no difficulty in this respect; the state of Quedah has served as a barrier between the Siamese possessions and the Company's territories, and has been bound to us by treaty and reciprocally engaged for our benefit"; and in reference to the disposition of the Siamese Government in comparison with the Malayan, "But we apprehend such would not be the case with a Siamese Government, so closely bordering on us, the natural insolence and haughtiness of the nation would be apparent in every intercourse, and they could only be held in check by the strong arm of power and a continual preparation to repel the aggressions which would be at all times too ready to be manifested."

In adverting to the conquest of Quedah and Perak by the Siamese, we are naturally led to take a brief review of the political relations which have heretofore subsisted between them. Confused and incongruous as is the history of the early settlements of the Malays on the Peninsula, which we find narrated in the *Sejarah Malayu*, or *Malayan Annals*, we are enabled to gather sufficient to shew, that prior to the emigration of the Malays from Sumatra in A. D. 1160, the more northerly part of the Malayan Peninsula was partially inhabited by Siamese. The Malays pretend to derive the descent of their Sovereigns from Alexander the Great, and trace in a regular line of genealogy, the successive Dynasties and Kings of Hindostan, till the time of Rajah Suran, grandson of Rajah Sulan, who reigned in Andam Nagara, and all the lands of the east and west were subject to him. The first place of importance he appears to have reached on the peninsula, was a Fort situated on the river Dinding, in the vicinity of Perak. The king extended his conquests to the country of Glang Khian, which in former times was a great country, possessing a Fort of stone, up to the river Johor. In the Siamese language, this word signifies the place of the Emerald (Klang Khian). The ancient city of Singapore was established by Rajah Sang Nila Utama (a descendant of Rajah Suran), who emigrated from the East Coast of Sumatra, it is supposed from the country now known by the name of Siack, which borders on the Menangkabau country. After the destruction of Singapura, by the forces of the Rajah of Majapahit, then a powerful state on the Island of Java, Rajah Secandar Shah founded the city of Malacca. He died in 1274. The conversion of the Malays to Islamism, is said to have taken place about the year 1270, in the reign of Rajah Kechil Besar, who after conversion, assumed the title of Sultan Mahumed Shah. In 1509, the annals represent Malacca as being one of the first cities of the east, and the king of that powerful state had successfully opposed every attempt of the Siamese to subdue them. At this time it is said Malacca was in a very flourishing state, "and the general resort of merchants, from Ayer Leleh, the trickling stream, to the entrance of the Bay of Moar, was one uninterrupted market place. From the Kling town likewise, to the Bay of Penagar, the buildings extended along the shore, in an uninterrupted line. If a person sailed from Malacca to Jagra (Parcelar

Hill) there was no occasion to carry fire with one, for, wherever he stopped, he would find people's houses. On the eastern side likewise from Malacca as far as Batu Pahat (Hewn Stone) there was the same uninterrupted succession of houses, and a great many people dwelt along the shore; and the city of Malacca, without including the exterior, contained nineteen lakas of inhabitants (190,000)." The last engagement between the Malayan and Siamese forces, which is recorded in the annals prior to the conquest of Malacca by the Portuguese, is thus described. "The Rajah of Ligor was ordered by the King of Siam to attack Pahang, and Sultan Mahumed of Malacca determined to send assistance to Pahang. At this time, the subjects of the city of Malacca alone, besides those of the coast and villages, amounted to ninety Lac. The Malacca people arrived at Pahang, and in a few days finished a large Fort. The Rajah of Ligor now advanced with all his hosts, which were innumerable, and commenced the war in a manner which cannot be described, and the soldiers of Ligor died like hens of the pip. The men of Malacca and Pahang attacked them, and they gave way, and were broke and completely dispersed. Maha Rajah Dewa Susa fled to the uplands of Pahang, and proceeded straitly by land to Calantan, from whence he returned to Ligor." This happened in 1509. In 1511, the Portuguese arrived and besieged Malacca. Sultan Mahumed fled, and founded a Fort at Bintanger. He afterwards retired to Pahang, and was received with great kindness. It was afterwards that he founded the city of Johor, and subsequently Rhio, on the Island of Bintang. In the subsequent year, the Malays made an attempt to retake Malacca from the Portuguese. In 1516, 17, 18 and 19, Sultan Mahumed, Ex-King of Malacca, and now King of Bintang and Johor, blockaded Malacca, but in the last was defeated. In 1521, the Portuguese made an attempt upon Bintang, but were defeated by the Malays under the celebrated Laksamana. During the subsequent five years, there were incessant hostilities between the Portuguese and Malays, and the former attacked Pahang and Patani, murdering and laying waste. In 1537, an attempt was made on Johor by the Portuguese. They were defeated by Sultan Aluden and the Laksamana, but in a second attempt, they reduced and sacked the town of Johor. In 1559, Sultan Abdul Jalil the first, ascended the throne of Johor.

From this period till 1610, there is little heard of Johor. Sultan Abdullah Shah ascended the throne in this year, and in 1613, we find that the King of Ach een, the ancient Ally of the Ex-King of Malacca, possessed himself of Johor, Pahang, and other places on the peninsula.

It does not appear that Singapura, Malacca, Perak, Johor, Pahang, or Rhio, or indeed any of the Malay states which were founded by emigrants from Sumatra, ever were subject to Siam during the long interval from 1160, when Singapura was first settled, up to the period of the conquest of Malacca by the Portuguese in 1511; on the contrary, there is unequivocal proof, that the Malays successfully maintained their position, and frequently repelled the attempts of the Siamese. In 1567, we are informed by Marsden, that "Sultan Mansur Shah from the kingdom of Perak in the peninsula, ascended the throne of Ach een, after several preceding Sovereigns had been murdered by the Ach enese." The same author informs us, that in 1613, the King of Ach een, whom the annals name Sekandar Muda, was known to our travellers by the title of Sultan Paduka Sri (words equivalent to most gracious) Sovereign of Ach een, and of the countries of Aru, Delli, Johor, Pahang, Kedah and Perak on the one side, and of Barus, Passaman, Tik u, Sileda, and Priaman on the other. Some of these places were conquerd by him, others he inherited. It is supposed by Mr Marsden, that during the reign of Sultan Alawaedden (and the opinion has been quoted by others as an authentic fact), who ascended the throne of Malacca in 1447, the country was under the power of the Siamese during some part of his reign of 30 years; but this conjecture is by no means supported by the Malayan history of that reign, and the successful opposition by the Malays to all the attempts of the Siamese seems to contradict such a supposition, which has perhaps been inadvertently advanced by this generally correct and enlightened author. In 1619, the King of Ach een made a conquest of the cities of Quedah and Perak on the Malayan coast. At this time, Perak sent a gold and silver flower to Ach een, in token of homage. Mr Marsden states, that in 1641, "the whole territory of Ach een was almost depopulated by wars, executions and oppression. The king endeavoured to uphold the country by his conquests. Having ravaged the kingdoms of Johor, Pahang, Kedah, Perak and

Delli, he transported the inhabitants from these places to Acheen to the number of twenty-two thousand persons." In 1614 we find "the Dutch complain that the Queen of Acheen gave assistance to their enemies, the people of Perak."

I shall now proceed to take a cursory and abstract view of the political connexion of the several principal Malayan states on the Peninsula, up to the period of the establishment of the British Interests at Prince of Wales Island, under their separate heads, beginning with

KEDAH OR QUEDAH.

Long prior to the conquest of Malacca by the Portuguese, the annals inform us, that the Rajah of Kedah proceeded to Malacca for the Nobats,* which were granted him; he was well received, obtained his dignities direct from Malacca, and was considered tributary to that state. Whether after the conquest of Malacca or prior to that event, is not precisely ascertained, the King of Quedah sent a Boonga Mas, or gold flower, to Siam, and the origin of this custom is thus accounted for by the Malays of the present day. In early years the King of Quedah sent a flower of gold to the eldest son of the King of Siam, a child, to play with, and the present being construed into a token of inferiority, or homage, the custom has been kept up triennially ever since; but the King of Quedah has usually received in return a present of superior value, such as a gold seere stand, handsome gold wrought cloths, &c. "By long custom," says Mr Light "the Kings of Quedah have acknowledged the King of Siam as their Lord paramount and sent triennially a gold and silver tree as a token of homage; in return for this the King of Quedah was supplied with elephants from the forests of Ligore and the provinces of Siam, which to him was matter of great profit; this was all the connexion; the present king demands a heavy tribute of money, arms, men, boats and provisions to be employed in his wars against the Burmahs; to avoid this the King of Quedah seeks the alliance of the English, he has no alternative, either he must join the Siamese against the Burmahs or defend his country against the Siamese; the latter is by the far the most prudent and beneficial." Quedah being a small country, as the king expresses it in one of

* The Drums or Insignia of Royalty.

his letters, and very near Ligore, in order to preserve a good understanding this flower of gold (from whatever cause the custom may have originated) has always been sent periodically to Siam in token of homage, and in like manner, the haughty despot of Siam even condescends to send a similar token triennially to China by which he secures very important privileges in the way of trade and exemption from duties. In his case, the presentation of the token of homage is considered as entitling him to indulgence, whereas on the other hand, its receipt from the Malayan state by him, is made a plea for oppression. Mr Crawford states, that "the King of Siam, although the circumstance be not generally known, acknowledges himself a tributary of the Emperor of China. His doing so, does not arise from any political necessity or consideration, or out of any actual dependance of Siam upon China, but altogether from this mercenary motive, that the vessels which carry the Ambassadors may, under pretext of their doing so, be exempted from the payment of all imposts. With this view, two of the largest description of junks, amounting to nearly 1,000 tons each, sail annually from Bangkok to Canton loaded with merchandize. They carry Ambassadors annually to the Viceroy of Canton, and once in three years, the Ambassadors go to Peking, an honor however, of which they are not considered worthy, until they receive a title of Chinese nobility from the Viceroy, and assume the costume of the Chinese. They carry the Chinese Emperor a golden flower in token of tribute, but receive in return gifts to a far greater value. The vanity of one court, and the rapacity of the other, have long rendered this intercourse a permanent one." If in this case, the presentation of a golden flower is made a pretext for obtaining very considerable immunities; does not arise from any political necessity, and does not betoken any inferiority, but is viewed merely as a complimentary offering, it is difficult to discover upon what grounds Mr Crawford and others have hinged their arguments, that a similar offering on the part of the Quedah state indicates a feudal subjection, which an occasional non-compliance with or omission of the ceremony justifies the Siamese in subjugating the whole country, and wresting the kingdom from an acknowledged rightful sovereign. But of this, more hereafter. Quedah has occasionally sent a golden flower to Acheen and to Ava. The cere-

mony seems indeed to be a mere interchange of civility, or a polite acknowledgement of inferiority, like one gentleman giving precedence to a superior in rank, though both may be equally independent. In 1770, the Buggese attacked and plundered Quedah, burning many houses. In 1785, the king ceded the island of Pinang to the English, up to which period, there is no account of the Malayan state of Quedah, which flourished under a succession of Mahometan sovereigns many centuries, and was at one period a place of very considerable trade, never having been under the authority of Siam further than is implied from the transmission triennially of a gold and silver flower.

PERAK.

The old Bindahara of Johor was originally appointed Rajah over Perak, under the title of Sultan Muzafer Shah. He married the Princess of Perak, and begat Sultan Mansur, who reigned at the time the Malayan annals were written, in the year of the Hejirat 1021. There is no tradition that this state ever did send the Boonga Mas to Siam nor does it appear that any such demand was made. It acknowledged dependence upon Malacca, even prior to a king being appointed from Johor, when it was under the control of a Pangulu, or minister of the Malacca state, but after the year 1567, when its own king became sovereign of Acheen, a token of homage was sent to that state by his successor to the throne of Perak.

SALENGORE.

This settlement was formed principally by an emigration of the Buggese from Celebes, and has never been in any way dependent upon Siam. In 1783, the Salengore people joined those of Rhio, and went by land to Malacca, which they blockaded. A fleet from Holland arrived opportunely in 1784. It is reported by Mr Light who writes to the Governor-General, that, "the Dutch then proceeded to Salengore, which they found empty, the king with his followers having fled to Pahang. The Dutch at the beginning of this war wrote to the Rajahs of Tringano and Quedah for assistance, the former joined, but the latter declined, excusing himself on account of a war in Patani. This will account for the King of Tringano's reception of your letter, and for the King of Quedah's anxious desire to have the honorable company for his

protector. In July last, the King of Salengore having collected about two thousand Pahangs, crossed over to Salengore, and in the night sent a few desperadoes to massacre the Dutch. They got into the fort, and wounded one of the centinels and the chief, but the garrison taking alarm, killed eight of the Buggese, dispersed the rest, and in the morning, the Dutch being afraid of another attack, embarked in their vessels, and fled to Malacca, leaving all their stores, provisions, and ammunition undestroyed; the king took possession, and still keeps it. The King of Salengore cannot remain long in his present situation, his people are kept together by hopes of assistance from the English, which he expects from the indulgence and preference our merchants always received from him and his father, above any other nation." "I had scarcely arrived when I received intelligence that the Dutch fleet consisting of three large ships and fourteen sail of prows and sloops, were before Salengore. The king unable to procure provisions, or to support himself longer without assistance, entered into a treaty with the Dutch the particulars of which I have not learned. It is said, they obliged him to swear on the Koran he would send all the tin to Malacca, and be a friend to the Dutch. They took away the guns which they had lost there, and have now sent for him to Malacca." In the early part of the year 1786, the Rajah of Salengore, Sultan Ibrahim, who is still alive, sent a letter to the Governor-General of India saying, that the Dutch Company's people had gone (having been expelled by force) and requested the British Government to form a settlement. It does not appear, that this state has ever had any intercourse direct or indirect with the Siamese, either commercially or politically.

COLONG.

This was formerly a dependency of Malacca, and afterwards fell under Salengore. In the reign of Sultan Mudhafer Shah, the third Mahometan King of Malacca, Colong was one of the most flourishing settlements under Malacca, and formed originally by emigrants from Singapore and that place.—In the year 1340, the chief of this place Tuan Perak, son of the deccase Bindahara,Srieva Rajah, was principally instrumental in repulsing the Siamese in one of their attempts upon Malacca. The circumstances are thus related in the annals, "about the year

1340, it is reported that the King of Siam, who in ancient times was named Salien Nani, hearing that Malacca was a great country and did not own his allegiance, sent to demand a letter of submission, but the King of Malacca refused. The Siamese prepared to attack Malacca, and had reached Pahang, when all the inhabitants from Mouar assembled at Malacca, and Tuan Perak brought up the people of Colong with all the women and children." The people of Colong complained of their chief's conduct, in bringing up their wives and children, as only the males from other places had arrived. His Majesty demanded why he had done so; Tuan Perak replied—"the reason I have brought their wives and children is, that they may contend with a true heart against the foe, and even if the Rajah were disposed to shrink from the combat, they would only be the more eager to prevent the slavery of their wives and children. For this cause, they will contend strenuously against the enemy." The King of Malacca was highly pleased with Tuan Perak and said, "Tuan Perak, you must not live longer at Colong, you must come and live here." The men of Siam however arrived, and engaged in fight with the men of Malacca. The war continued for a long time, and great numbers of Siamese perished, but Malacca was not subdued. At last the whole Siamese army retreated. Tuan Perak was appointed Bindahara, or General. Some time after, the Siamese made another attempt. "They advanced as far as Batu Pahat, a place a few miles to the southward of Malacca, but were vigorously opposed by the Malays; the Siamese champion said;—the preparations of the Malays are immense. If they advance what a fine situation we shall be in, especially as we found ourselves to-day, unable to contend against a simple prahu of their's. Then all the Siamese returned. In their retreat, they were pursued by the Bindahara, Paduca Rajah, as far as Singapore."

JOHORE

Was founded by Sultan Mahomed, ex-King of Malacca in 1512. The place was destroyed by the Portuguese in 1608, and a new town built higher up the river. In 1613, when the Dutch had a small factory there, it was conquered by the Achenese. In 1703, says Milburn, "Captain Hamilton visited the place, and was kindly received. The king made him a present of the Island of

Singapore, situated near the entrance of the river, but he declined taking possession of it, notwithstanding its convenient situation for trade, and the surrounding country being well supplied with excellent timber and trees fit for masts." In more recent times, it has been little heard of, and from being a large and populous city, dwindled down to a small fishing village. Johore has long been a dependency of Rhio.

PAHANG.

In the reign of Sultan Mansur Shah of Malacca, an expedition was sent against Pahang. It is thus related in the annals:—"The Bindahara proceeded against it, and after a day's journey, the Malacca forces reached Pahang, and defeated the inhabitants with great ease." The King of Malacca married the beautiful Princess Wanang Sri, the daughter of the Pahang Chief, Maha Rajah Dewa Sena, who fled. During the reign of Sultan Mansur Shah, the Siamese never returned to Malacca, nor did Malacca men interfere with the Siamese. Towards the conclusion of this king's reign, he sent an embassy to Siam with a letter which contained neither greeting nor salutation, and ran thus:—"it is desirable that there should be no further wars, for there is reason to fear the loss of life, and verily Paduca Bubangan is to be dreaded in war, but there is great hope of his forgiveness and favor." The Emperor of Siam asked how it was Malacca had not been taken by the Siamese, and Tuan Talani, the envoy from Malacca "called an old man of Savor, who had the elephantises in his legs, to display his skill in the spear. He tossed up spears in the air, and received them on his back without the smallest wound." "This, Sire, said he, is the reason why Malacca was not conquered by the Siamese, for all the men are of his description." The Siamese also sent a mission to Malacca, and the King of Malacca was rejoiced and said—"now my heart is at rest, for my enemy is converted into my friend"—and as the historian expresses it. "God knows the whole, and to him be grace and glory." The kingdom of Malacca was powerful at this time, and it is reported, that embassies were sent to and from the Emperor of China and the King of Malacca. In the reign of Sultan Alu-eddin, the successor of Sultan Mansur Shah, the Laksamana was sent to Pahang, to call the king to account for killing a Malacca Chief.

It has been supposed by some authors, that during the reign of this Prince, Sultan Alu-eddin Rayat Shah, the country of Malacca was under the Siamese power, but this does not appear to be by any means the case, as it would seem that Malacca, during that king's long reign of thirty years, was as powerful as it had ever been, as has been before shewn. Pahang in late years has been considered under the authority of Rhio. The king was desirous of having the English there, but it was never taken possession of.

PACKANJA.

This was also a dependency of the Rhio State.

TRINGANO.

Before Pinang was settled, the Sultan offered a Settlement at this place, and about the same time, he writes to the Supreme Government—"according to the advice communicated to us through Captain Glass, we gave fair words and liberal presents to Siam, but Siam is not contented. He demands ourself, or our son to go and do homage at the foot of his throne, and if we do not comply with his demands, he threatens to destroy our country; there is no example or precedent from the earliest period of any prince of this country doing homage in any other manner than by letter."

CALANTAN.

This state was rendered tributary to Malacca in the reign of Sultan Mahomed Shah. The event is thus described in the Malayan annals. "After some time, the prince ordered Sri Maha Rajah to attack Calantan. At that period, the country of Calantan was much more powerful than Patani, and the name of the Rajah was Sultan Secunder Shah, who refused to do homage to Malacca; Calantan was taken by the Malacca men. The Sultan of Malacca married the eldest daughter of the Rajah of Calantan, whose death sometime afterwards, distressed the king much." The chiefs of Calantan have often complained of the vexatious demands of Siam; but have never acknowledged more than its inferiority to Siam, and maintained its independence under a regular succession of Malayan kings, extremely friendly and disposed to conciliate the English. The Rajahs of Calantan have separately solicited the protection of the British Government and

requested the establishment there of an English factory, offering very considerable advantages.

PATANI.

The origin of the Patani state is thus described. "It is related that there is a country named Cota Maligei, the Rajah of which was a Moslem, and named Rajah Soliman. This country came to be mentioned in Siam as a very fine country, but not subject to Siam. A son of the King of Siam, named Chaw Sri Bangsa, proposed to go and reduce it, and proceeded against it accordingly with an innumerable host like the leaves of the trees, and when he reached Cota Maligei, Rajah Soliman came out and engaged Chaw Sri Bangsa, man to man, and each of them mounted on an elephant. Chaw Sri Bangsa declared, that if he was victorious over Rajah Soliman, he would assume the doctrine of Islam. The place was taken, and the Siamese chief became a Mahometan, and desired his Astrologers to search for a good place to found a city. There was a fisherman who had a son named Tani, whence he was called Patani (Tani's father) the city was built where he resided, and hence it was called Patani." The King of Patani sent ambassadors to the king of Malacca, requesting the nobats to be granted to him, and Patani became a dependency of Malacca. The English established a small factory in 1610, which was abandoned in 1623. The Siamese, about the time Pinang was taken possession of, plundered the place and murdered and carried off the inhabitants, and in subsequent years, the state became separated and disunited under different leaders, or petty independent Rajahs.

JOURNAL OF AN EXCURSION TO THE NATIVE PROVINCES ON
JAYA IN THE YEAR 1828, DURING THE WAR WITH

DIPO NEGORO.*

12th September—Left Buyalali about 7 this morning, on horse-back, and arrived at Ampel about nine, having ridden gently and stopped some time to inspect a new bridge now building, in the room of one that was carried away by the swell of the river in the last rainy season; its bed is now quite dry, covered with rocks and large stones. Here we saw the wreck of a bullock cart, which had upset in crossing it; it was laden with gin and many of the cases and bottles were broken, which made the ravine smell like a distillery.

In the afternoon, rode over a part of the estate with Mr D. who showed us his sugar plantations and mills. The latter have only been erected a few months, and are not yet in full operation. These mills work on the old and simple system of the Chinese, that is with a pair of buffaloes, yoked to a strong horizontal lever of wood, which turns 2 vertically revolving stones; between these the cane is inserted and the juice squeezed out. It falls into a receiver underneath, from whence it is conducted by subterranean pipes, into the boiling house close by; here it is boiled in large iron pans, over a strong fire of wood and dried canes and afterwards cooled in earthen pots of a conical shape, each holding about 80 pounds English, and perforated at bottom, to let the dregs run through into other pots placed for the purpose; this is the treacle or molasses, which by boiling again yields an inferior sugar. The men who superintend the boiling are Chinese, this art not being understood by the Javans. The planters, coolies, cattle-keepers and all the other workmen are Javanese, either the tenantry of the estate or free labourers, hired at the rate of 15 doits, or less than three pence, a day each; it is an agreeable reflection that no slave-labour is employed in our Java sugar manufactories, as in the West Indies, and that the use of the whip is unknown here.

Mr D. expects to make this first year about 2,000 piculs or 266,000 pounds of sugar, and in the next when all his plantations will yield cane, and his mills be completed, about twice as much;

* Continued from Vol vii, p. 378.

the sugar used in his household is the produce of his plantation and is very white and fine. The cane grows best in old rice fields and is fit for cutting in about eighteen months after planting. Some kinds, however, ripen earlier; it is cut close to the ground and shoots up again, a second crop is obtained in about 8 months which is often better than the first.

Sugar is now scarce and in demand, many mills having left off working of late years, the proprietors being in want of funds; it is worth at Semarang from 20 to 22 guilders a picul, at Batavia 25 to 28, so that Mr D's undertaking bids fair to be successful; he fully deserves to succeed, being an enterprising, industrious, and intelligent man, and a good master to his native tenantry with whom he is very popular; these qualities have gained him the general esteem, especially as they are rare in the class to which he belongs, Mr D. being a country-born or lip-lap as the Dutch call them.

Ampel, 13th September—This morning we took a ride with Mr D. through another part of his plantation and visited his coffee gardens, &c.

The coffee trees are planted in regular rows, 6, 7 or 8 feet from each other, with dadap trees in alternate lines between them for the purpose of shade. In some places they were plucking the ripe coffee; in others, the trees were full of the white blossom which gave the gardens a very pretty appearance, the coffee leaf being of a glossy dark green and now shining from a smart shower that fell yesterday evening and refreshed the vegetation all around.

Mr D. has altogether in various parts of his estate, 600,000 coffee trees; the produce is generally estimated on an average of a large plantation at a catty annually from each fruit bearing tree. This would give 6,000 piculs or 750,000 lbs. Dutch, but some of his plantations are quite young and do not yield any fruit; he calculates the present year's produce at nearly 4,000 piculs.

The gardens are weeded and cleaned three or four times a year, and the dry branches lopped off; this is all the labour required after the first planting, it can be performed by women and children, as well as the plucking and drying of the fruit. The coffee is cleaned from the husk by pounding it in wooden mortars or troughs with long wooden pestles; this is also performed by women

though it is rather hard work; it is then cleaned by repeated siftings in the wind. Each person can thus clean half a picul a day, for which they receive 20 doits, or about four-pence. The coffee is conveyed to Semarang for sale and shipment, in straw or mat bags each holding a picul, two of which are carried by a pack horse; the hire of each horse is $3\frac{1}{2}$ guilders, so that the conveyance by this mode costs $1\frac{1}{2}$ guilders (about three shillings) a picul. The distance is about 40 miles.

Mr D. is now making carts or waggons, to be drawn by oxen, to convey his produce to Semarang, and expects to effect a considerable saving of expence by this means.

The next most considerable article of cultivation here is the *kachang tana*, or ground-nut, which yields, by expression, a great quantity of oil; this is obtained by a simple machine on the principle of a wedge; the refuse left after the oil is extracted by pressure in this machine, is formed into cakes, and used for manure, and sometimes, I believe, to fatten cattle. The nut is planted in high grounds, that are unfit for the wet rice cultivation, and arrives at maturity in about ten months, when the nuts are dug out of the ground in dry weather, with a little iron instrument, and dried in the sun previous to being put in the press.

Besides the above articles, which form the staple of his produce, Mr D. has planted rice, barley, maize, potatoes, pepper, wheat, rye, vines, and mulberry trees, to rear silk worms, the two latter as yet only in the way of experiment. These various articles, the natural productions of countries so remote from each other, all growing on one estate, attest the fertility and variety of the soil and climate of Java, and shew what might be expected from them were European capital, enterprize and skill freely applied to the pursuits of agriculture and encouraged by a liberal government and a state of public tranquillity.

We also visited the kitchen garden, which is on an eminence about three miles from the house, commanding a beautiful and extensive prospect over hill and dale, interspersed with woods and fields; most of the European vegetables grow here in perfection, including artichokes, cauliflower and asparagus, which are otherwise rather scarce in Java. There were also several beds of fine strawberries, some young peach trees in blossom and others in

bearing. These, together with the numerous European rose-trees, put us in mind of home and carried my thoughts many thousand miles away, till the illusion was broken by a row of orange trees full of fine fruit, the bright scarlet blossoms of the pommegranate and the giant leaf of the plantain.

Mr D's outlay at present is from 5 to 6,000 guilders a month, but when his sugar works are finished, it will be reduced to about 4,000. He has laid out an immense sum of money in the plantations, building and stock. He hired this estate in 1820, from the owner Prince Bumi Notto of Surakarta, to whom he pays in rent nearly twice as much as the Prince formerly received from his Javanese tenantry; there are in number about 1,000 working men, or probably 4,000 souls in all. Mr D. remained here as overseer ostensibly to the Prince, after the Government decree of 1823 dispossessing the European landholders. When the disturbances broke out 2 years after, and most Europeans abandoned the country, Mr D. resolved to remain on his estate and stand or fall with the property he had sunk in it. He accordingly built a kind of stockade around his dwelling, fortified it with some small cannon and raised a corps of soldiers from among the native inhabitants, originally at his own expence. They now receive rations and pay from Government and have on many occasions been very useful in the war as escorts for treasure and stores &c. The result of this spirited and judicious conduct has been, that this estate has not suffered by the war at all and by the Government measures of 1823 much less than the other lands then held by Europeans. That resolution was rescinded in May last year, since when Mr D. has taken a new lease of the land for the term of 20 years, during which he has a fair prospect of realising a considerable fortune; besides this estate, he has taken two others on lease from the native owners, where he likewise grows coffee and sugar.

Mr D. observes in his household the old fashioned mode of living among the Dutch Colonists, that is, taking no breakfast whatever, except a cup of coffee or tea, immediately after rising with a piece of bread or biscuit; dining at noon precisely, taking a *meridienne* afterwards, and an early supper at 8 or 9; these hours he finds the most convenient for carrying on his many avocations out of doors, in superintending the labourers of all

descriptions which he employs, among whom are stone-cutters, carpenters, brick-layers, brick-makers, lime-burners, smiths and armourers; almost every thing required for his establishment being manufactured on his estate, and principally from materials produced on it.

Ampel, 14th September—My worthy host being about to proceed to Semarang this day on business, kindly offered me a seat in his carriage, which I accepted as far as Salatiga, intending to go to the head-quarters of General De Koek, the Lieutenant Governor at Magelang, to pay him a visit and see something of that district, celebrated for its beauty and fertility, before I return to the coast.

We started accordingly from Ampel at half-past five; the morning was cool and fine, so that we had a pleasant ride to Salatiga, about ten miles distant, the road mostly in pretty good condition, except where the streams of rain had washed away the soft earth on the surface, leaving the rough stones underneath uncovered. We passed within a short distance of the bases of the Merapi and Merbabu mountains, of which we had a clear and beautiful view the whole ride, as likewise of two coffee plantations situated along their feet belonging to Europeans.

Arrived at Salatiga about half-past seven, and took leave of Mr D., after which I breakfasted at the inn, kept by a native of Brabant, and chiefly frequented by military officers removing from one station to another.

Called on the Assistant Resident to pay my respects, but was told he was taking his siesta; took a walk through the European village, which is very prettily built, on both sides of the high road from Semarang to the interior; most of the houses are of brick, white-washed with shingle roofs; with little gardens annexed to them, in some of which European or Persian roses were blooming.

There is a small fort here, defending the road and entrance to the village from the native dominions. It mounts only 3 or 4 guns, and has a very small garrison at present.

Dined at the table d'hôte at four, and set out again soon after five, in a hired carriage towards Kadu. It had rained smartly in the middle of the day, which had made the air cool and pleasant, and laid the dust. The latter part of the road being somewhat hilly, six horses were put to the carriage, and in one place a pair

of buffaloes were yoked on before them, though I and my servant only were in the chaise. Left the Semarang road at a place called Tangan-tiga or the three arms, where the road branches off to Magelang, on a gentle ascent. Here is a temporary barrack for marching troops, and a Government establishment of bullock carts.

Arrived at Jambu at seven o'clock; the road here becomes so hilly, that it is impassable for carriages, and I was to proceed the next stage on horseback. Slept in the Post house, on a bambu bali-bali or bench, covered with a mat and my boat-cloak; this bed being much harder than I was accustomed to, and unprovided with curtains to keep off the mosquitoes, with which this place abounds, I did not pass the night very comfortably and enjoyed little sleep.

15th September—Rose early from my uneasy couch, and there being no convenience for washing and dressing in the Post house, prepared to proceed on my journey *sans faire ma toilette*. Having engaged two sorry hacks, the best I could get for myself and my servant and two coolies or porters for my baggage, we set off at half-past five, with the first break of day. I had eleven miles to perform on horseback. The road lies over successive ranges of hills and intermediate ravines, many picturesque points of view, between the mountains Sindoro and Sumbing on the right (called by seamen the two brothers) and those of Merbabu and Merapi on the left. About three miles from Jambu, at a place called Chuntang, is a Benteng, or field fortification, to protect the road to Magelang, commanded by a Sergeant-Major and garrisoned by 24 men. It lies in a very advantageous position on the top of a hill, well planted with borangs or sharp stakes of bambu; there are now no cannon in the stockade.

The road was nearly covered with packhorses and oxen, conveying coffee, (principally) from the interior to Semarang, and rice and other provisions, vice-versa.

My horse was very lazy, and I could not get him out of a walk, or slow uneasy trot, though I broke my whip and tired my arm upon his insensible hide. This made me late in arriving at Medono, ten miles from Magelang, where the road again becomes practicable for carriages, and the Resident had sent a carriage to bring me on; I was not sorry to change my conveyance, being

somewhat fatigued with my up-and-down-hill ride on a rough-going poney, and the sun was beginning to be troublesome.

From Medono, the country is highly cultivated, and the scenery very beautiful; several plantations of tobacco, for which this district is celebrated throughout the Indian Archipelago, are seen on each side of the road. The other principal productions in this neighbourhood appear to be dry rice, jagong or maize, kachang or ground nut, ketela, a kind of arrow-root, with here and there a coffee garden, which seemed to be flourishing. There is little sawa or wet-rice ground, owing to the scarcity of water.

Arrived at Magelang at half-past eleven, having been detained nearly half an hour on the road, by an accident caused to one of the wheel-horses by his violent kicking, and which obliged us to take him out, and proceed with the other three in the broken harness, tied up with rattans.

After a hearty *déjeuner dinatoire* at the Magelang hotel (no very brilliant establishment) sent to enquire if the General was visible, but found he was gone to a short distance with the Resident, and would not return till the afternoon; took advantage of this to make amends for my little sleep last night; on waking found an invitation to dinner had been sent for me by the Resident.

I proceeded accordingly to the Residency house, which is but a short walk from the inn, and paid my respects to General DeKoek, who received me very kindly.

A part of the staff, with some unattached officers, and two or three inhabitants of Magelang, were the guests at table, which was well supplied, considering the distance from the coast. We took a short ride after dinner, and played at cards in the evening, which I passed very pleasantly, and returned to the inn at ten o'clock.

Magelang, 16th & 17th September—The Resident apologized to me yesterday, for not being able to give me a room in his house, which besides his own family, is now occupied by the Lieutenant Governor-general DeKoek and his staff. The General has fixed his head-quarters here, as being a central situation, convenient for the receipt of reports from the commanding officers of detachments, and Bentings or Stockades, which are scattered over the country, to the number of eighty or ninety.

The general's daughter, a very amiable young lady, is also staying here with Mrs V. the Resident's wife. It was arranged that I should pass the day, or as much of it as I found agreeable, at the Residency, during my stay here, and only retire to the inn at night. The said inn, being but a bambu hut, nearly dark, very noisy, and not over clean, I was well satisfied with this arrangement.

18th September—This morning I made one of a party to visit the ancient Hindu Temple of Boro Bodor, about ten miles from Magelang; this is considered the finest of those remains of antiquity which are found in Java. We left Magelang about half past five, in an open carriage and four, and drove through a most fertile country for about seven miles, to the banks of the river Progo, where saddle horses had been sent on for us, the river being impassable for carriages. We crossed it on horseback, over a kind of floating bridge, constructed of a series of bambou rafts reaching from one bank to the other, and resting on thick floats of bambu, placed longitudinally in the river, and kept in their position by long ropes or stays of rattan, fastened to large trees on each side of the water. This floating bridge had been constructed on purpose for us in the course of yesterday, its predecessor having been carried away by a sudden flood the day before. The current here is very rapid; this river empties itself into the sea on the south side of Java, where it is very wide. Its banks have often been the scene of battle within the last three years.

Half an hour's easy riding brought us to the Temple of Boro Bodor. I cannot describe this magnificent and interesting ruin better than by extracting the following passage from Raffles's "*History of Java*," relating to it (vol. 2, page 29, quarto edition.)

"In the district of Boro, in the province of Kedü and near to the confluence of the rivers Elo and Progo, crowning a small hill, stands the temple of Boro Bodo* supposed by some to have been built in the sixth, and by others in the tenth century of the Javan era. It is a square stone building, consisting of seven ranges of walls, each range decreasing as you ascend, till the building terminates in a kind of dome. It occupies the whole of the upper part of a conical hill, which appears to have been cut away so as to

* So termed by the people of the neighbouring villages. Borò is the name of the district, Bodo means ancient.

receive the walls, and to accomodate itself to the figure of the whole structure. At the centre, resting on the very apex of the hill, is the dome before mentioned, of about fifty feet diameter ; and in its present ruinous state, the upper part having fallen in, only about twenty feet high. This is surrounded by a triple circle of towers, in number seventy-two, each occupied by an image looking outwards, and all connected by a stone casing of the hill, which externally has the appearance of a roof.

"Descending from thence, you pass on each side of the building by steps through five handsome gateways, conducting to five successive terraces, which surround the hill on every side. The walls which support these terraces are covered with the richest sculpture on both sides, but more particularly on the side which forms an interior wall to the terrace below, and are raised so as to form a parapet on the other side. In the exterior of these parapets, at equal distances, are niches, each containing a naked figure sitting cross-legged, and considerably larger than life ;* the total number of which is not far short of four hundred. Above each niche is a little spire, another above each of the sides of the niche, and another upon the parapet, between the sides of the neighbouring niches. The design is regular, the architectural and sculptural ornaments are profuse. The bas-reliefs represent a variety of scenes, apparently mythological, and executed with considerable taste and skill. The whole area occupied by this noble building is about six hundred and twenty feet either way. The exterior line of the ground plan, though apparently a perfect square when viewed at a distance, is not exactly of that form, as the centre of each face, to a considerable extent, projects many feet, and so as to cover as much ground as the conical shape of the hill will admit ; the same form is observed in each of the terraces.

"The whole has the appearance of one solid building, and is about a hundred feet high, independantly of the central spire, of about twenty feet, which has fallen in. The interior consists almost entirely of the hill itself."

The preceding account appears to be substantially correct, as far as it goes, but, as indeed Sir T. S. Raffles himself remarks

* These figures measure above three feet in height in a sitting posture, and with the images found in the towers, exactly resemble those in the small temples of Chendi Seiru.

elsewhere in his History, it is very general and imperfect.* He had probably, like myself, but a cursory view of these beautiful remains, which would require perhaps a month to be thoroughly examined, and a volume to be accurately described, in detail.

The expression "a triple circle of towers" appeared to me, however, not exactly correct; they are more like large bells in form, but the stones are cut with open work, so as to shew the sitting figures within perfectly, these are supported on cushions, round the borders of which the lotus-leaf appears sculptured. By some the bells are supposed to represent the lotus flower itself, (the well known mystical symbol of the Hindu faith,) turned downwards, that is, with the stalk above. All the seventy-two figures resemble each other almost exactly: there is only a difference in the position of the hands; the expression of the face is tranquil, soft, yet earnest, in fact that of calm and serious meditation. These figures are supposed to represent Buddhas. Many of them have been robbed of their heads, some have lost a hand or a foot. Besides the great enemy Time, this magnificent work has been injured, first by the fanaticism of warring sects, afterwards for ages, by the effects of earthquakes and volcanic eruptions, (it is not very far from the mountain Merapi,) and in latter days, I fear, by many of its admiring visitors, desirous of possessing relics and specimens of Javanese antiquity.

The most striking and beautiful part of the building, however, consists of the sculptures in relief on the walls of the galleries or terraces that run, one above another, all round the hill or temple, and are about six feet broad, and paved with stone; these bas-reliefs are said to be several hundred in number; the figures are generally well proportioned and graceful. In some of the groups a resemblance may be found to scenes from daily life among the Javanese, at least some of their occupations and habits seem to be represented; the greater part however are doubtless of mythological character, and relate to the Buddhese worship or tenets.

According to some authorities the incarnations of Vishnu are represented on some of these bas-reliefs. The lotus is again very frequently seen, especially in the hands of devotees or listeners to Buddha's preaching. Many other flowers and plants are introduced, as well as birds and animals of various species. One com-

* Vol. 2: page 55.

partment seems to exhibit the sea with its waves, over which a singularly shaped vessel is gliding full of people, while underneath the fish are sporting. This may perhaps allude to the first voyage of the Buddhist priests from India, when they came to make proselytes among the Javanese. The bas-reliefs further contain representations of temples, pendopos and other buildings. In some of them supernatural beings, divinities, demigods or angels, appear floating on clouds above.

The figures in the niches outside of the surrounding walls or parapets mentioned by Raffles, are all like those higher up sitting under the bells (or lotus) already noticed and probably are also meant for Buddhas.

The dome alluded to by Raffles as crowning the summit of the hill or temple, is by some considered to have originally had the form of a gigantic lotus likewise, but closed and to have held the chief idol or object of supreme adoration whatever that was. This dome or cupola was most solidly built and the stones composing it let into each other by grooves and put together with mathematical accuracy—yet it lies now in ruin, so that its original form and purpose can be but imperfectly judged of. Nor is this to be wondered at, even independently of the leading causes of devastation above alluded to, when it is recollected that eight or perhaps nine centuries have passed over it.

The material used for the building and sculptures seems to have been the same kind of stone one finds scattered all over the neighbourhood and in the beds of the rivers (trachite) probably ejected in former eruptions of the Merapi. What infinite labour, patience and perseverance must have been required to complete such a magnificent work, as it no doubt originally was, and particularly the profusion of sculptures and images with which it is decorated and as it were covered! Allowing these to have been the work of Javanese instructed and superintended by Buddhist artists and priests, it may have occupied perhaps the greater part of a century if the Javanese of those days worked no faster than they do now.

It is remarkable that some few of the subjects appear to have been left in an unfinished state, on these the marks of the chisel may still be traced, here and there, while some of the figures intended for lions or other animals outside of the building are but half

completed, as if the sculptors had been suddenly interrupted in their labours.

The plate in the second volume of Crawford's "History of the Indian Archipelago" may convey a general though very imperfect idea of this splendid monument as it appeared when the drawing was taken, which must have been from fourteen to fifteen years ago: but the injuries of the elements, the depredations of collectors, and above all the spontaneous and unchecked vegetation that in many parts overgrows the sculpture have no doubt altered its appearance and will continue to do so as time rolls on. In the work above-mentioned as well as in that of Raffles, are a few plates of figures and detached portions of the temple, but these give no notion of it as a whole, besides some of them being, as it is said, incorrectly executed.

It is much to be regretted that these representations, imperfect and scanty as they are, are nevertheless the only ones that exist, at least I am not aware of any others having been published.

How much it were to be wished that the whole building and its several parts, especially the bas-reliefs, had been made the subject of a regular series of drawings by a clever hand, from which correct engravings might be taken!—Boro Bodor would be well worth the trouble and expence of such illustrations, not only for the beauty of the sculpture as works of Indian art and skill, but more particularly from the interest excited by its antiquity and mysterious character, as a relic of a race and of a creed which have passed away long ages ago and of which nothing whatever is known by the present inhabitants of Java, who, however, preserve a kind of superstitious veneration for the monument. This is evident from the pilgrimages performed and offerings presented to some of the Buddha figures by the peasantry of the adjacent districts and even from more remote ones on occasions of difficulty or distress as well as of public festivals.

The Javanese have given names of their own to those and many of the other Hindu figures, but they possess no written records of any kind relating to them, nor the least knowledge of the origin and history of the numerous remains of antiquity found on their island. The popular legends and traditions that have been communicated by Javanese to European enquirers are evidently fabulous and must have been invented in after times. These legends

in different versions generally ascribe the edifices and statues to supernatural workmanship.

Such a collection of faithful and complete representations of the architectural antiquities of Java, and particularly of the bas-reliefs at Boro Bodor, would probably be of great assistance to scientific and philosophic research, and throw some light on the ancient history of this Archipelago, as well as the religions of Brahma and Buddha, as they once flourished on Java, all which are now enveloped in darkness.*

It is also a pity that more care is not taken for the preservation of the building, and the sculptures that are still more or less perfect; the bushes, weeds, &c., before noticed had been allowed to grow luxuriantly in many parts, and to my great regret made it quite impossible either to obtain a good general view, or to examine some of the particular portions as closely as I wished.

I would gladly have devoted the whole of the day to inspecting these grand relics of former ages at comparative leisure, but my companions were not so disposed. They had seen the ruins before, some of them at least, and did not partake in the high interest with which they inspired me, but became impatient to return to Magelang to be in time for the late breakfast, which to these gentlemen was more attractive than picturesque and mysterious antiquities.

I was reluctantly obliged to cede to the majority and bade farewell for the present, to the ruins of Boro Bodor, after a long look at the beautiful scenery that surrounds them.

This district is now, alas! but very thinly inhabited, on account of the disturbances from which it has also suffered, though less than some of the neighbouring provinces.

From the submit of the temple were visible seven or eight deserted villages, once populous and comparatively wealthy, for

* The wish expressed above has now, it is said, some chance of being realized, as far as Boro Bodor is concerned. In 1849 two German draughtsmen, belonging to the corps of engineers, by order of the Governor-General Rochussen, commenced making a collection of drawings of the temple (in outline or etchings) with all its images, bas-reliefs, &c. This minute and extensive work naturally requires a length of time, and is I believe not yet finished, but some of the drawings were lately to be seen at Batavia. They are beautifully executed and appear very correct, allowing for the discretion used by the artists, in representing those sculptures that are more or less injured, *not* in their present dilapidated condition, but restored to their original state where it can be satisfactorily traced. These drawings, it is supposed, will be forwarded to Europe, and there published by means of lithography, with the aid of the Government in Holland. This will be a valuable gift to the scientific world,—1853.

the soil of Kadu is one of the richest and most productive of the island, and this Residency has on that account been called the garden of Java.

The inhabitants of these villages were formerly employed, as a feudal service, in keeping the temple clear of weeds and rubbish, when it was no doubt in a better state for inspection than it is now; but they have been driven away or partly murdered, and their peaceful houses plundered and burnt by the insurgents, to which unhappy cause the present neglected and overgrown conditions of the ruins is principally owing.

We returned in the same way we came, partly on horseback and partly in the carriage to Magelang, where I confess my antiquarian indifference to the substantial charms of a good breakfast or rather tiffin, gave way to the appetite which the ride had given me.

During my further stay (of only three days) at Magelang nothing of particular interest occurred, although various reports came in from marching detachments of our troops, and of skirmishes with parties of the rebels.

I visited the temporary hospital, which contained nearly four hundred military, Europeans and Natives, who appeared to be well taken care of and provided for, to which no doubt the frequent inspections by General de Koek and his staff contributed.

On the 21st September in the evening, I took leave of the General, the Resident and family, all of whom had treated me with great kindness.

22nd September—Departed from Magelang early this morning in a carriage, which the General had kindly ordered for me as far as Medonno. From thence on a kooda-aloo or hired horse to Tangan-tiga; the weather was dark and rainy during the greater part of this day, so that I did not enjoy the ride, and was glad to get under cover at the Post house of Tangan-tiga, where the Magelang road falls into the highway from Semarang to the Native Courts.

This place is kept by a former non-Commissioned Officer, who is very useful to passengers from and to Semarang; as these pay him well, for the accommodation he affords, *such as it is*, and he likewise receives pay from Government, for superintending the transit of convoys of provisions and treasure, &c., mine host is

one of those who have made money by the war. Here I dined and slept, not *quite* in the style of an English hotel, but well enough for one who has often passed the night *en bivouac* in the woods and on the mountains, as I have done in the interior of Sumatra.

On the 23rd of September I proceeded from this place in a post carriage, which had been kept for me, to Semarang, where I arrived about noon, and put up at an inn. The next day however, I moved to the house of my acquaintance Mr B. at his pressing invitation.

I had originally some thoughts of going on to the eastward from hence, as far as Surabaya, where I have a brother-in-law married, and settled in the Government service; unfortunately, however, I was taken ill two days after my arrival at Semarang, which confined me to the house during the remainder of my stay, excepting one or two dinner visits to my hospitable Semarang acquaintances, which I could not avoid; though they did me no good. This illness, added to the length of time I had been already absent from Batavia and without news from my family, induced me to give up the plan of extending my tour, and to return to that place as soon as possible, the rather as I had received indirect information, that the Commissioner General intended to recall me into active service.

I therefore took my passage in the steam-boat, and embarked on the 29th in the afternoon, after taking leave of my Semarang friends; we started before dark and had pretty fair weather, considering the time of the year, the easterly monsoon being about to change.

This vessel is called the "Baron Van der Capellen," in honor of the late Governor-General, who encouraged the proprietors (chiefly Englishmen) in the undertaking, and was one of the first passengers by her, having hired the vessel to take him and his suite from Batavia to Anjer (in January 1826) where he embarked on one of the E. I. Company's China ships to proceed to Europe.

This is the *only* steam vessel as yet in Netherlands India; I believe she measures about a hundred and eighty tons, and has two engines each of twenty five horse power, and being intended for the conveyance of cargo as well as passengers, she is rather too heavy for her engines, and in consequence does not go very

fast, six or seven miles an hour being considered a very good rate. She has been very useful in carrying officers and troops along the coast to and from Batavia during the disturbances, and is supposed to have answered well as a speculation, though the present proprietors do not admit this.

The accommodations of this vessel are of course not to be compared to those I have seen before in Holland, England and elsewhere; indeed the passengers cabins are very small and uncomfortable; as I was however the only one on the present voyage, and withal an invalid, the Captain had the kindness to give me half of his cabin or *state room* as they choose to call it, where I was very comfortable as far as a sick head-ache would allow; this disagreeable attendant continued with me during the voyage, so that I was glad to reach the roads of Batavia on the first of October in the morning; we had been about forty hours at sea, the distance is about two hundred and fifty miles.

I landed immediately with Captain L. who had been very attentive to me on the passage; the first news I learned on my arriving in town, was my appointment three days back to an important and very laborious office at Batavia, immediately connected with the members of government, so that it was well I determined on returning hither from Semarang, instead of going farther eastward, as was my original plan when I left Batavia.

Here, therefore, my journal must end, although I should have been glad, had I remained out of employ, of seeing and describing in it, something more of the interior of this rich and beautiful island.

The same evening I attended a large party at the house of Mr C. the acting Lieutenant Governor; here I met some old friends and also some new ones, whom I probably owe to my new appointment.

I must now prepare to take charge of the honorable, but difficult and laborious duties entrusted to me, and shall henceforth have no leisure for revising, correcting and enlarging these imperfect notes, written generally during the hurry and excitement of my journey, without any opportunity of consulting books and documents regarding the places and matters referred to.

I must therefore send you my Journal as it is, "with all its imperfections on its head," and trust to the kind indulgence of

my friends* to excuse its incompleteness, its every day tone and language, and all its other deficiencies in form and matter.

J. D. P.

Batavia, 2nd October, 1828.

* The Journal from which the foregoing pages have been extracted, was not intended for publication, but only for the amusement of the writer's family in Europe.

THE
JOURNAL
OF
THE INDIAN ARCHIPELAGO
AND
EASTERN ASIA.

JOURNAL KEPT ON BOARD A CRUISER IN THE INDIAN
ARCHIPELAGO IN 1846.*

ON the 31st March 1846, we left Singapore with five Chinese merchants for Kalantan, for the purpose of obtaining from the Rajah a quantity of goods, consisting principally of tin, the property of the above Chinese, which had been forcibly detained for several months. Although the authorities at Singapore had remonstrated several times, the Rajah obstinately refused to restore any part of the goods, hence a visit from a steamer become necessary. We had also orders to touch at some of the neighbouring towns. On the 3rd April, the steamer came to an anchor off the entrance of the Tringanu river, and was boarded by a

* The following Journal was kept on board one of the East India Company's steamers in 1846. It contains notices of several Dyak and Malay villages on the Coast of Borneo, nearly all of which were then visited for the first time by Europeans.

Police boat. Captain R. intimated his intention of visiting the Rajah early the next morning and desired them to have fire-wood ready for us. On the 4th, the visit was paid and a letter or message from the Governor of the Straits Settlements, Colonel Butterworth, C.B., delivered. The town or village of Tringanu has a very pretty appearance from the river; the houses line the south bank for a couple of miles and are built very close, on piles; in the back ground are two hillocks, on one of which the standard of Tringanu is hoisted on great occasions, and behind the hill is a forest of cocoanut trees; on the north bank there are a few isolated houses, built in groves of cocoanuts. Some of us were employed loading the ship's cutters with fire-wood some distance beyond the town, and while doing so a respectable Chinese invited us to his house, where a slight repast was served up and our host surprised us by producing some capital French brandy and enjoyed his glass as well as any of us. In the afternoon the Captain received a present of bullocks, fruits and cakes, and the Rajah sent a message that he was desirous of visiting the steamer. Early on the 5th he came off in great pomp to his schooner the "Dragon" and there waited till our boats were sent; he soon came on board, and in a few minutes the decks were crowded with his followers. The Rajah is a fine looking man, very plainly dressed in a sarong, white baju and black velvet jacket slashed with gold thread, very shabby and worn out. His body guard was composed of 12 Malays, armed with krisses, and each man carried a drawn sword in his right hand; they looked a filthy set of rascals—in dress they do not differ from their rabble. The heir apparent is a fine lad, about 4 years old, and was carried about in the arms of a follower, who kept close by the side of the Rajah. After minutely examining the engines and other parts of the vessel, the Rajah, his Prime Minister and nobles were treated in the cabin, whilst the mob on deck was amused by our band, consisting of a drum and fife. Some of the natives had learnt the art of ship-building at Singapore and assisted by Chinese carpenters had built the schooner abovementioned, which was a very creditable piece of workmanship. She is rigged well and kept exceedingly clean. Wood, therefore, they had seen worked into ship-shape, but how our steamer had been built of iron they knew not. It was strange to see them examining the sides, knocking the iron, and looking at each other quite puzzled.

A very curious incident occurred below, which amused us not a little. The Rajah took his son in his arms, caressed him, fondly patted him on the cheeks and then suddenly gave him a sharp slap on his nose, which brought tears to the boy's eyes. The little fellow looked up and smiled as if quite accustomed to such tokens of affection. I understood from one of the guard that it was to flatten the nose, the boy having rather a prominent one, which is not considered a mark of beauty among the Malays. In a couple of hours all had quitted the vessel and after taking in sufficient wood, we steamed for Kalantan. The scenery changes gradually to the northward, the hills are much larger and some distance from the coast a very high range of mountains is seen. We anchored in the evening off Kalantan and fired a gun to attract the attention of the people on shore. Shortly afterwards a guard boat came off, the steersman seemed very much alarmed, he was seen waving a white cloth over his head, and trembled so much that on gaining the deck he could scarcely speak. This man was well known to the Chinese passengers, who stated that he was a great tyrant, extorting large sums from the native traders, and is the chief of the village at the mouth of the river. The strange appearance of a steamer and the gun we fired, no doubt disturbed the poor man's conscience.

On the 7th Captain R., accompanied by 2 officers and 20 men, well armed, ascended the river to negotiate with the Rajah. At first the latter proved very obstinate, but on R. threatening to bring the steamer up and batter the town down if the goods were not restored, he consented to deliver everything up on the morrow. This answer was returned at the close of a second meeting in the afternoon. At the first assembly he refused point blank. Our party left the hall and were about to return to the steamer when the Rajah sent word to say he would have another meeting. The audience hall is about 160 feet square and seems to be in course of erection by its unfinished state, only one side being enclosed. Here the Rajah sits on a dais; before him the hall or shed is open, so that should the assembly be a large one, the natives sit beyond the roof on the ground from where they may hear all that passes.

On the 8th, R. went again but could get nothing satisfactory out of the Rajah. He again refused to give up the property and his followers apparently inclined towards warlike measures, for on

threatening again to attack the town the whole of them uncovered their krisses and seemed much annoyed. They were eventually pacified by the Rajah and he promised to let us have the property on the next day. Accordingly, early on the 9th we went up once more, when the Rajah Kechil met us and said his brother was not prepared to receive us. He had us conducted to his own house, where his wife received us, and presented us with fruit, seree and sweetmeats. She is very fine woman, between a Chinese and Malay, handsomer than any native woman I had seen in the Straits, and very lady-like in her manners. She is the mother of the Chinese Captain. Her late husband, a Chinaman, who died some months ago, was Captain for many years and at his death the Rajah Kechil seized and took her to wife by force. This displeased her very much, not that she had any objection to the man, but that it deprived her of the influence over the Chinese, about 1,000 men, which she acquired on the death of her husband, her child being too young to undertake the duties of the office. The Chinese were equally enraged and expressed themselves very strongly on the subject when not in the presence of their ruler, but they said they were obliged to submit.

The house we were received in is surrounded by two wooden enclosures about 18 feet high and 100 yards apart; the house has the appearance of 3 huts joined length-ways, with no partitions dividing them, or one house covered by a 3 peaked roof; it is about 150 feet by 100 feet. From the entrance the floor rises by steps 8 or 10 feet wide to the musnud, dais or platform on which the Rajah sits. At their meetings the natives of the highest rank sit near the chief, the next grade on a lower step and so on, decreasing till the common people sit on the ground. Behind the musnud is a door leading to the female apartments or harem. During our interview a great number of females were seen peeping at us, but the screens prevented our criticising their beauty. From the roof hung howdahs, seats and trappings used on elephants. We saw several of these animals feeding in the yard. The Rajah Kechil is reported to be rich. In about an hour he entered, followed by his guard of 30 men and a ragged crowd, who seated themselves around us cross-legged, and the Rajah out of compliment to us sat on a bench, on which he seemed far from comfortable. I did not like his appearance, he is rather ugly and has an unpleasant

way of looking at one from under his eyelids. He said his brother was ready to receive us; we accordingly rose and followed him to the palace, if that term can be used for such a miserable hovel, though it is certainly a hundred times larger than any common house in the place. We found about 600 men assembled, who were seated on the floor, which was similar to that in the last house, and the Rajah looking wretched in an English chair. He is about 50 years of age, better looking than his brother, and with a very good tempered look mixed with cunning about the eyes. After a great deal of altercation he ordered the property to be given up and promised to have it all alongside the steamer at day-light the next morning. The Rajah and his followers treated R. very rudely; his manner was so annoying, that a man of a worse temper than R. might have resented it. He offered us no refreshments and pointedly neglected many of those civilities in which the polished Malay abounds. On leaving the Rajah, the little Chinese Captain met us and begged we would partake of a dinner prior to our journey down the river. To this we assented and were very hospitably entertained by himself and followers. The lad is about 14 years of age, of an agreeable appearance, of a slight frame, marked by small pox, and partaking largely of his mother's manners. Three Chinese sat with us at dinner, and a crowd of inferiors sat in the room and looked on with curiosity. The Chinese are excellent cooks, and will convert the most simple materials into a very savoury dish. The ceremony observed was this;—before a morsel was eaten, tin cups, holding little more than a thimble full of arrack or samsoo, were placed before each individual and at a signal from one of the Chinese, all had to raise the cups to their lips, empty them and place them on the table again. The chop sticks are then seized and held in the air;—at a signal, every man falls to and eats as much as he can. This was no easy matter, my companions fared better than myself, having learnt the use of the sticks in Cochin China, but for the life of me I could not pick up a single piece of meat. Our host finding me so ignorant, ordered in an English fork and spoon with which I made up for lost time, much to the amusement of the spectators. After a few mouthfulls the master of ceremonies stopped, dropped the sticks and raised the cup, we were obliged to follow the example, hobnobbed and returned to the sticks, this was repeated several times. Chop

sticks are two round pieces of wood, bone or ivory, about 10 inches in length, they are cleverly held between the fingers of the right hand and the food seized by the tips. This can easily be done with a little practice as the food is always cut into small pieces, I have noticed however, that when very hungry they lift the dish close to the mouth and shovel in the food with both sticks held close to each other.

When about to return R. received a very handsome kris, the handle being inlaid with gold. On the 10th, all the articles detained were sent off as promised, and we returned to Tringanu, where we were entertained by the Rajah, and on the 11th the Rajah's uncle with his followers came on board. One of them, to my surprise, instead of saluting us on coming on board with the usual "Tabeh Tuan" said in excellent English "Good morning, Sir." Concluding he had picked up these words in his intercourse with Europeans, I was walking away when I thought he said "I am a Waterloo man." This attracted my attention and on questioning him he related the following particulars of his eventful life:—He is a German named Martin Perrot, joined Napoleon's army as a conscript when very young, served in Italy and Germany and subsequently in Spain and Portugal, was taken a prisoner by the British, entered their service, fought at Waterloo in the second Brigade of German Rifles and received the medal for that victory, received his discharge on Peace being concluded, and came out to India in the Dutch service. On Malacca being abandoned he left and settled in Tringanu, adopted the native costume and turned Mahomedan, carries on his original trade of blacksmith, by which he obtains a comfortable living, declares he has a perfect recollection of Wellington, Napoleon, and other remarkable characters. At first sight I took him for an Albino, several of whom I have seen in the Straits, and in his native attire, reddish brown skin, blue eyes and white hair, he certainly had more the appearance of one than of an European. He has a perfect command of our language, and no doubt has been a soldier from his knowledge of military tactics, but I much doubted the story of Waterloo &c.

On the 12th anchored off Pahang, R. pulled to the town and left the Governor's letter. On the 13th came to in Singapore harbour. On landing found the greatest excitement prevailing

with regard to the position of Mr Brooke at Sarawak. It was reported that the Sultan of Borneo had caused Rajah Budrudeen and Muda Hassim (who are of the British party) to be murdered, had sent emissaries to Sarawak with instructions to murder Mr Brooke and his adherents, and that the latter were very much alarmed and had written to the authorities at Singapore for assistance. We received orders immediately to start and left as soon as we had taken in enough wood and water for the trip, having on board Jaffir, a Malay lad who had escaped from Borneo, and was the first to convey the news of the cowardly massacre to H. M. S. "Hazard." I had frequent opportunities of conversing with him and learnt the facts connected with the slaughter. It would appear that the Sultan and influential chiefs of Brune (the capital) were very jealous of Brooke's authority and interference and naturally vented their spleen against the two brothers mentioned above, who were to them the authors of all their misfortunes. Muda Hassim was the ruler of Sarawak and for services performed by Mr Brooke, which have been made public by his friends the Honorable Captain Keppel and Captain Mundy, he ceded the whole of the district to the Englishman and created him a Rajah, tributary to the supreme ruler. The two princes then removed to Brune, the Lion's den, and in a few months the poor fellows met that end which all conversant with the Eastern character must have anticipated when they left Sarawak for the capital.

One of the ministers, a daring crafty man, at length advised their murder, as the only way to settle the disputes that were daily waxing stronger and which had divided the city in two parties, the British and Anti-British. Budrudeen was well known to be a very courageous man, so the attack was planned very secretly, so much so that not one of the unfortunate family heard a whisper of the project. On the night in question, a party proceeded in two divisions and attacked the houses of both brothers, at the same time, so suddenly that nearly all were killed asleep. Budrudeen rose up and on looking out of his house, saw so large a party that he retreated, secured himself in an inner room, and blew himself up with a barrel of gunpowder; he had often been heard to say he would never allow himself to be killed by man. Jaffir always spoke of him with the greatest affection and described him as an indulgent master. This lad threw himself into the water and

escaped the assassins by swimming down the stream; he was the only one that escaped. He got a small canoe and made his way to the mouth of the river, got safely on board H. M. S. "Hazard" told his story and was taken to Sarawak and subsequently sent to Singapore to tell his own story to the Governor. The prince Budrudeen was much admired by all the Europeans for his engaging manners and noble disposition. Muda Hassim was not such a favourite and appeared crafty and suspicious of others.

On the 23rd arrived off Mr Brooke's house at Kuching (or Cat Village), the native name. Having read much of his philanthropy, and traced the singular manner in which he had obtained a footing in the country, the expeditions against pirates, which were daily related by my messmates,* it may be concluded how anxious I was to see this wonderful man.

On the 24th he paid us a visit, and I must say I was disappointed. Instead of the tall handsome man, half soldier, half corsair, that I had pictured to myself, he appeared a plain looking gentlemanly man, about 5 feet 9 inches high, not ill looking, rather thin, hair and whiskers inclined to grey, a mild blue eye, and what struck me most was the languid negligée air that pervaded him. He walked the deck as if it was the greatest exertion and threw himself into a seat, after two or three turns, quite overpowered. I could scarcely believe that the man before me was the daring soldier, (he had served in Burmah and was wounded) the amateur sailor in his dashing yacht, the inflexible Rajah and the destroyer of the savage pirate. His career was too well known for me to doubt and I soon saw how excitement dispelled the lassitude that seemed natural to him, for there was not a cooler or more active man in the whole fleet than Rajah Brooke, when in chase of a pirate or capturing river stockades. He was dressed in a blue sailor's jacket, white trowsers and shirt, a skull cap and round his neck a black silk neckerchief tied in a sailor's knot. This was the only time I saw him wear a jacket in Kuching. He usually strolled about in shirt and trowsers. I cannot say too

* They had taken a part in Keppel's cruise in 1845, for which, though a large sum was awarded to the "Dido", the poor fellows did not receive a farthing, but instead the Honorable Captain wrote to say that by some omission (I think in not entering the crew of the "Phlegethon" on his books, or mentioning the vessel as a hired one), they were not legally entitled to a share, but that he would take care in future, should he ever have the pleasure of serving with vessels of the Bengal Steam Service, to adopt every precaution that should entitle them to their share of prize money.

much in praise of his manner, he was affable and kind to all and was one of those men in whose company you feel at home in five minutes. The Rajah's costume was of course adopted by all his followers and very comfortable they declared it to be. On this visit we were awakened one morning very early by shouts and yells; rushing on deck, we saw several Dyak war boats pulling past. On passing Mr Brooke's house the paddles were dropped and the most unearthly yells indulged in for 2 or 3 seconds. I learnt they were a party of the Rajah's Dyaks bound on an expedition against some neighbouring tribes. Some days afterwards they returned, having met the enemy, fought and conquered and captured several heads.

On the 25th, dined at the Rajah's. At desert I was surprised to see a number of Malays come in and seat themselves round us. On some occasions I believe a great many are present, and the Rajah, it is said, transacts a great deal of business at night.

On the 28th, started with Messrs Brooke and Low, for a town called Siriki; what the object of our visit was, did not transpire, but it was supposed the chief was rather an influential man and the Rajah was desirous of conciliating him. Passed the rivers Sakarran, Sarebas and Kaluka, anchored off the Siriki in the evening, and crossed the bar the next morning in $1\frac{1}{2}$ fathoms of water. A brother of the Patinghi came on board and piloted us, directing our course close to the north bank of the river, where we found a splendid channel 5 to 12 fathoms deep. In the afternoon came to, off a long house, about 200 feet in length and 30 wide, built on posts 25 feet high. It contained about 150 people. This is a village. Fuel was prepared for us, which we took in, and on the 30th steamed up the branch on which the principal village is built. The stream was exceedingly narrow, and it was with some difficulty the vessel was navigated. On approaching the Patinghi's residence, every vessel and house fired guns of all sizes for several minutes in honor of the "Tuan Besar's" approach. On anchoring off the royal residence, we fired a salute of fifteen guns in honor of the Patinghi or Mr Brooke, I cannot say which, and the latter with our commander and 2 officers landed and paid an official visit. In the afternoon whilst Rajah Brooke was at dinner two officers slipped on shore and were received by the Patinghi in great state, who no doubt took

them for people of consequence. The Patinghi is an old ugly man and a cripple, having lost the use of one leg by disease. R. afterwards informed the officers that the Rajah did not like such visits without his sanction and that in future they were not to do so.

On Friday, the 1st of May, the vessel was surrounded by boats laden with men, women, and children. As many as pleased were allowed to come on board. The invitation was readily accepted and hundreds came on deck and strolled about for hours, astonished at all they saw. This is the first European vessel that has ever been seen at the town. The men and women are fair and resemble the Chinese more than the Malays. Presents of fruits and vegetables were sent off, boat races were started and in fact all classes seemed determined to repay us for our kindness in allowing them to visit the vessel. Left on the 3rd for the Rejang, one of the principal rivers on the west coast, two Dyaks coming on board to pilot us. The stream is generally half a mile wide and has deep water from bank to bank. It is a splendid river, and is the outlet for all the Dyaks from the interior. We steamed up on the 3rd and on the 4th went out to seaward by another branch of the same river, anchored for the night off a village called the Batang Ballio, the chief of which is a brother-in-law of the Patinghi at Siriki, he saluted us and we returned the compliment. Ballio is similar to Siriki and other Malay and Dyak villages, the houses are miserable dwellings, irregularly built on posts 15 to 20 feet high. The chief on the 5th sent all his people to cut wood and load us, which they did very cheerfully, and on the 6th steamed out of the river, and steamed up the coast about 20 miles, to the mouth of the Owbye or Owey, where a Malay came off and piloted us in; crossed the bar at half flood in $1\frac{1}{2}$ fathoms of water. The village is about 4 miles in, anchored abreast the Pangeran's house, who fired the usual salute of 3 guns. At night the Rajah and party spent a few hours with the Pangeran, and on board rockets were discharged and blue lights burnt to astonish the natives. Remained off the village on the 7th, the Rajah ashore again at night. R. took a large musical box which surprised them. On the 9th employed in receiving fuel, left the place for Sarawak on the 10th, after paying for all the wood, the Pangeran followed us a short distance. The

native boats pull very rapidly; they kept up with the steamer till we cleared the river.

On the night of the 14th, the Rajah exhibited a large magic lantern to the natives of Sarawak. They were, as might have been expected, much astonished and pleased with the wonderful figures on the wall and no doubt looked on Brooke as a mighty magician.

On the 18th, Brooke embarked and we started for Linga,—anchored off the mouth of the river, on the next day. The stream being too narrow for the steamer, she remained there, and I was sent up in one of our cutters for the Patinghi. The town is built in a very pretty situation at the foot of a range of low hills, thickly covered with trees, interspersed with huts, to the summit. It is without exception the most picturesque place I had seen in Borneo. The chief accompanied me to the vessel and had a long interview with Brooke. On the 20th anchored off the village of Kaluka, R. ashore in the evening with the Rajah, astonishing the Patinghi no doubt.

The Rajah not requiring our services for the present, we returned to Singapore and remained till the 16th June, when we started with Sir Thomas Cochrane in the "Hastings" to chastise the Sultan for the murder of Rajah Budrudeen and Muda Hassim. The fleet consisted of the "Hastings" 74, "Iris" 26, Captain Rodney Mundy, "Ringdove" 16, Sir William Hoste, "Royalist" 10, surveying vessel, Steamer "Spiteful," Commander Maitland and the "Phlegethon" Ross. After clearing the Straits the Admiral desired us to hasten across and announce the approach of the fleet. In a few days anchored off the Moratabas, one of the mouths of the Sarawak river, and sent the Admiral's letter to Mr Brooke. On the 24th the fleet arrived, the Admiral with all the commanders in the fleet came on board of us and in a few hours we landed them at the Rajah's. The "Julia" Mr Brooke's vessel brought us a supply of coal. On the 26th a boat came in from the northward and stated that the Kaluka and Sarebas people had fought, the latter losing 5 heads, also that a boat from Siriki had been captured by some Illanoon pirates who were at Sirhassan. On the 26th the fleet got under weigh and stood towards the Rejang. 27th the Admiral, Captains Mundy, Maitland, Hoste, Vansittart and Mr Waller, Secretary, and 10 marines

came on board. Mr Brooke desired R. to go over the ground we had so lately visited for the Admiral's gratification. Although we had been so lately on the coast, the entrances of the river are so much alike that we steamed some distance up a river before we found we were in the wrong one. We turned, ran out to sea, and after searching about for some hours found the entrance of the Rejang and anchored off the entrance to the Siriki. Mr Brooke sent Jaffir to acquaint the Patinghi of the Admiral's arrival. 28th steamed up to the town and landed the Admiral and suite. They soon returned and we left, steamed up the Rejang, passed two rivers called the Pallo and Egan, and entered a third called the Marling. On the 29th entered the Kanowit, a small stream by which the Sakarran and Sarebas Dyaks enter the Rejang. At the entrance observed the remains of a very extensive village and was informed by the pilot that it used to be inhabited by a tribe of the Kanowit Dyaks, who on one occasion made a successful attack on the Owhai Dyaks and dreading their retaliation, had moved further up the stream, where it would be difficult for the latter to attack. The scenery on the Kanowit is very pretty, the river flows between hills about 200 feet high, covered with rank luxuriant foliage from their summits to the water's edge, the back ground a dark green and gradually lightening in color. All the shrubs near the water partake of a golden yellow, the woods are thickly inhabited by green pigeons. Our pilots are Siriki, Dyaks, they are very anxious to know if our visit is friendly or otherwise; they wish us to attack the Kanowit people who had ill-treated their tribe. At 1 P. M. on turning a point we came suddenly on the village; the consternation and confusion caused by our sudden appearance was ludicrous in the extreme; the women seemed to have been bathing themselves or washing their children, for a great number were seen rushing up the bank screaming with fright, and scrambled up the ladder into their nest. The men seemed divided in their intentions, some waved pieces of white cloth, the universal emblem of peace, while others, more valiantly inclined, seized their spears and donned their fighting jackets. All was bustle and confusion till we hoisted a table cloth at the fore (or as Captain Mundy asserts, one of his linen bed sheets), at the same time our pilots hailed them and invited the chiefs off, assuring them of our friendly intentions.

Quiet was soon restored, and without the least hesitation the chief came alongside in a boat with 12 pullers. The Admiral and his party visited the village. To the right on a small hill is a tomb supposed to be a chief's, it is surrounded by stones surmounted by small triangular flags. We steamed down to the junction of the Kanowit with the Rejang and anchored for the night. I was told by one of the officers of the "Nemesis" that a village in the same place was afterwards (in 1847 or 48) destroyed, I believe it must have been the one mentioned above. About 18 miles from Kanowit I observed a small house and on asking the pilot as to the reason of its isolated position, he replied, it was a holy spot whence the Kanowit took their omens from the flight of birds, like the Old Romans.

30th—Grounded a few miles above Egan and remained 12 hours ashore till the flood tide made. Went to sea on the 30th and fell in with the fleet soon after, proceeded towards Labuan in tow of the "Iris" to save coal.

4th July—Anchored off Mooara Point at the entrance of the Brune river. 5th—received orders to proceed across to Labuan alone, to look for the steamer "Pluto" and H. M. S. "Dædalus", they having been directed to join us from China. Stood across and on finding they had not arrived, returned. 6th—employed surveying the channel from Mooara Point to Pulo Chermin and buoing it off. The fleet moved up in the afternoon and anchored close to the first bar. Found the fort on Chermin and another on a hill to the right deserted. One of our officers was left with a cutter in charge of the former all night, to guard the fort and keep the natives from cutting the buoys. Chermin mounts six 24 pounders and the other fort six 18 pounders.

Near Chermin an artificial bar had been made across the channel, by sinking large stones, leaving a very narrow passage, completely under the fire of the guns, and had they not been deserted we must have suffered much.

7th July—Towed the "Royalist" past Chermin and left her safe in deep water, the "Spiteful" followed and anchored close to her, the "Phlegethon" returned to the "Agincourt" and embarked small arm men and a rocket party.

8th—At daylight, weighed and proceeded up the river, ahead of the "Spiteful" with the "Royalist" in tow; we had several

boats belonging to the fleet in tow, full of marines and small arm men. 10 A. M. sighted three forts. As the river looked shallow I was ordered to go in Captain Mundy's gig, sound ahead, and show the water by throwing up as many oars as there were fathoms of water. On nearing the fort, they opened fire, which was returned by the steamers, the small arm men landed and in the excitement of the moment I forgot Captain Mundy, pulled ashore and landed with the rest, so that the poor Captain was obliged to come in one of the unwieldy flats. On seeing him I recollected for the first time his gig and sword, he graciously accepted my apology and there the matter ended. After spiking the guns, embarked the men and stood towards the town; came to a little below, and allowed the men to breakfast. I forgot to mention, that not a single dead body was found in the forts.

As soon as the "Phlegethon" turned the last point immediately facing the town, the fortifications opened a well directed fire, the vessel was hit in several places, a seaman belonging to the "Agincourt" was cut in two, our cook had his leg shot away in his caboose and died of hemorrhage before he was discovered. Another European had his arm shot off, and 6 others were slightly wounded. We soon ran alongside of the guns and took possession of them, not a dead body was found, nor any blood in the embrasures. I am of opinion the guns were all loaded and when the steamer came within range, one man ran along the battery and discharged them. They were not reloaded;—had they been, it is certain we should have caught some of the men, for from the time we turned the point to the moment we took the guns a $\frac{1}{4}$ of an hour could not have elapsed. Small arm men immediately landed, ran up a hill and spiked several guns that had been mounted on it, boats were sent up the creek after the defenders of the fort and not the vestige of a human being was to be seen.

9th—Hoisted in all the brass guns—inhabitants returning. I was ordered to go up the country with a guide and persuade Pangeran Muda Mahomed, who with his family were concealed in the jungle, to come down. This prince is a connection of Bu-drudeen's—how he escaped the fate of his friends I never heard. I pulled several miles up the river in one of our cutters, then anchored and got into a small canoe manned by 3 Malays, which was concealed in the mangrove jungle, we paddled up the narrow

stream nearly 5 miles till we got to the Pangeran's retreat. I must admit that I felt far from comfortable on finding myself in the midst of a dense jungle surrounded by Malays who might have been inimical to our party. I told the Pangeran that the "Tuar. besar" wished to see him and after a short delay he accompanied me to the "Spiteful". 10th—the vessel was making so much water that we were obliged to haul her ashore and examine the bottom plates, found she had been struck in several places below the water line, patched the holes and hauled off into deep water. An expedition left this day for the country in chase of the Sultan, who had taken refuge in the jungle with his family. We took several boats in tow and steamed up the river, till it was too narrow for us to turn easily. Cast the boats off and returned, lashed alongside of the "Spiteful" and put some of the brass guns on board of her, one was a very beautiful long brass 32 pounder, bearing the Spanish Royal Arms on the breach, and the word "Alexandro" near the muzzle. All the guns seem of Spanish manufacture from their resemblance to Alexandro and must have been purchased at Manila.

11th—The Admiral came on board and desired R. to steam up the river to meet the boat expedition. The stream being very narrow and the current rapid the vessel was rather unmanageable. On turning a point the officer of the watch ran her into the bank and carried away the fore-yard. At 3.30 P. M. the expedition returned, all hands looking very fatigued, they had been unsuccessful, the Sultan having left his hiding place a few hours before they reached it. I was much pleased to hear the officers of Her Majesty's Navy bear witness to the work performed by our men, who were Malays and Javanese. They acted as pioneers to the party; in fact, it was admitted that but for them the expedition could not have got through the jungle. The smartness displayed by these men on all occasions and the coolness with which they worked their guns, always elicited the warmest encomiums in vessels stationed in the Straits which are often engaged with Malay pirates. I would rather have Malay seamen than Europeans; when well drilled they are quite as smart and far more tractable. A slight incident occurred which will exemplify their courage and high sense of honor. When approaching the batteries at Brune, guns were manned and loaded and on the former opening fire, a party

of English sailors thought our Malays would not stand fire, jumped to the forecastle pivot gun and pushed our men away. The Malays fired up, called on their officer to order the Europeans back or the consequence would be fatal, then drew their knives and seized the Jacks. A very serious row would have ensued if the officers of the "Agincourt" and the officer of the gun had not interposed immediately and parted the belligerents.

13th—Mr Brooke having heard that the Sultan had taken refuge in a village below the town, another expedition was sent in search, which also proved unsuccessful. The inhabitants have quite recovered from their fright, have returned to their houses and fallen into their usual occupations. In the afternoon ran down to the "Agincourt" and discharged all the guns into her, then returned to the Admiral.

By some means two of the men who were supposed to have assisted in the murder of Budrudeen were captured by the natives favourable to us, and they were kried in a house near the deceased Rajah's dwelling. Some of our officers were present at the execution and described it as a most barbarous spectacle. After the poor wretches were killed, each member of the Rajah's family or friend cut at the bodies with his kris to gratify revenge. I believe these men were not tried by judge or jury, or brought before the "Tuan besar," but were allowed to be murdered in cold blood, without having the opportunity of making their defence.

19th—Left Brune, the "Spiteful" grounded about half way down the river and floated off on the tide rising.

20th and 21st—Employed taking in wood at a village near the entrance of the river.

23rd—The fleet sailed for Labuan, the breeze being very light we took the "Agincourt" in tow and managed to pull her at the rate of 2 or 3 miles an hour.

24th—Sir Thomas and suite came on board and made a tour round the island, landed several times to look for coal but found none.

25th—Left for the Northward. On clearing Labuan the "Spiteful" was despatched to Singapore with letters.

26th—Steamed into a bay off Pulo Tiga with Admiral and party, but finding no village of any consequence, returned.

27th—Visited Keemanis, it is built about 10 miles up the river and very prettily situated.

29th—Anchored in Ambong Bay; the entrance is very narrow and on getting well in you appear to be land-locked, the hills are very high and above the Eastern heights Kini Balou is seen about 10 to 15 degrees high. The hills are covered with forest trees with scarcely any underwood. We landed and strolled about in the jungle without any difficulty. The village is scanty, bullocks and poultry are very plentiful, we got a great number in exchange for cloth and empty bottles; the natives were exceedingly friendly.

31st. Anchored off Tampasuk, said to be an Illanun village. R. and the chief officer went ashore and I was ordered to go to a large prahu which was at anchored about 5 miles off, with a white flag flying at her mast head, and to bring her alongside. Starting with a fair breeze we soon neared her, I could see nothing remarkable about the prahu, she looked very like a Bornean trading craft, my men however said she was a Lanun pirate. In a few minutes we were alongside, only 2 men were standing aft and I now saw that the side was lined with shields which completely concealed every thing on her decks. The Captain or spokesman asserted he was a trader, had been to the north with merchandize and was returning to Brunei. I replied if that was the case he could have no objections to come with me to the Tuan Besar, who was anxious to make certain enquiries. To this he objected and a discussion took place between us and his crew, which had now increased to a dozen men. Having only 6 men with me, I thought it prudent to appear quite ignorant of the real state of affairs and persuade him to come with me, feeling pretty sure that if he really was the panglima, and I could manage to get him away the crew would have very little heart to resist us. To prove his assertion he at length yielded and got into the cutter, I shoved off and pulled back to the steamer. During the conversation, my men were very anxious to board her, and I had great difficulty in restraining them. On Mr Brooke seeing him he said he knew the panglima or had heard of him and that he was a notorious pirate. Two cutters were despatched and the prahu got alongside. From our decks we could now see how heavily she was armed, a little abaft the fore-mast she mounted a short iron 9-pounder, and two brass lelaks on the quarter deck,

carrying one pound shots. We first handed all her arms out which consisted of 8 swords, 10 spears, 3 kris, and several knives of all sizes; then handed the men out, 19 in number, besides the panglima. It was really a wonder that every one of us were not killed, the arms were laid on deck within a few feet of the prisoners, they might have armed themselves and killed a great number before we could have recovered our surprise. We thought nothing of it at the time, but a fortnight after the "Ringdove" took a similar boat and on handing them up, some ran amuck, killed a marine, mortally wounded the master and slightly wounded 3 or 4 others before they were secured. On the whole of our prisoners being ranged on one side of the quarter deck we proceeded to disarm the Panglima, the moment he had given up his kris, he gave a yell and sprang over the side into the water, followed by the rest in the twinkling of an eye. Our boats were lowered and with a great deal of trouble they were all recaptured without doing them any injury. On searching the prahu, a large chest was found in midships containing the remains of a human being with a severe cut in the abdomen and wounds on several parts of the body. Among the crew we found two slaves, natives of one of the Phillipine Islands, they had been stolen by the pirates some years before. From them we learnt that the prahu had formed one of a fleet that had left Tampasuk a week before and had met a hostile party on the East Coast, a fight ensued in which one of their panglimas had been killed and they were returning with his body for interment. They also gave information of several attacks on Spanish colonies. The Admiral therefore resolved on sending them to Manila. The "Ringdove" received them and handed the pirates over to the Governor. The boats of the squadron proceeded up the river and completely destroyed the village. On R. and the chief officer first landing several men came down to the boat heavily armed, some were dressed in chain armour, no doubt of Spanish make.

Sunday, 2nd August—We took a number of gun-boats in tow laden with small arm men and steamed to the mouth of the Bendassan and cast them off, the 2nd Officer and I were sent with 2 cutters, to assist. About 3 miles up the river, came on the town,—found it deserted, caught all the live stock and burnt the houses down. It is also a pirate haunt. On returning to the fleet

found the Admiral underweigh, received orders to remain off the Kimanis till Captain Mundy returned. We steamed to Ambong and the fleet left for Malludu Bay.

4th—Anchored off Pulo Gaja and watered the vessel; remained all night for a Brunei Nacodah that had promised to show us Saman's hiding place.

5th—Anchored off Kimanis; received intelligence that Hajee Saman was at Mumbakut, a river about 8 miles to the S. W., the Dyaks had joined him and were determined to fight us. This Hajee was the instigator, or had some hand in the murder of Budrudeen and his brother. The Rajah must have sent intimation of our intended attack on Saman for armed boats daily arrived from Brunei to give us assistance.

11th—Captain's patience being fairly worn out, got underweigh and stood up the coast to Passa.

12th—Visited the orang kaya and amused ourselves with deer shooting.

13th—Pangeran Dawd arrived, came on board to see R., he is a very plain looking man, but intelligent, he owns a great part of the country hereabouts and intends joining our expedition. R. promise to fire a gun on Mr Brooke's arrival.

14th—"Iris" at length in sight, got underweigh, steamed to our old berth off the Kimanis. "Iris" anchored close to, heard of the capture of two other Lanun prahus by the boats of the "Royalist" and "Ringdove" and the murder of the master and others.

The Rajah came on board and arranged the attack. Sunday was fixed on as a lucky day.

15th, Saturday—About 100 native war boats collected around us ready for the morrow.

16th, Sunday—took the "Iris" boats and about 20 prahus in tow and anchored off Mambakuk or Mambakut. At half-past 7 we shoved off and pulled up the river. It was very exciting at the bar to see the English boats with colors flying and the prahus with flags of every imaginable shape and color hung up at all parts of the vessel; found the current very strong, running about 4 miles an hour, boats scarcely moved;—the enemy impeded our progress by sending down rafts, trees, &c., to obstruct our passage, and fired the guns off up the river, no doubt to scare us.

About noon came in sight of a small fort, the river was staked across leaving an opening in the centre, which was completely under the enemy's fire. Here I saw another instance of the superiority of a Malay crew, the moment we got round the point and the fort opened fire, the men in two of the "Iris" boats dropped their oars, jumped up with muskets and returned the fire, and the officers had some difficulty to get them to resume their oars. The consequence was that the two boats were swept down the river by the current. On the other hand our men had received orders not to cease pulling till we got close to the fort they implicitly obeyed and we were the second boat at the fort, the "Iris" pinnace under the first Lieutenant arriving first. The Dyaks kept up a fire till we got within 20 yards. They then ran away, carrying their guns with them across the point to a boat which was in readiness, the distance across was not more than 300 yards whereas the distance round the point was fully treble, so that before we could get to the spot they had started from, they were half a mile up the stream. One of the Pinnace's men on jumping ashore ran a stake through his foot, this was the only casualty. Destroyed the ammunition and proceeded up, reached a Malay village by noon, the fleet of boats anchored and the men were allowed to dine, then pushed forward, the current proving more rapid it was hard work to make way. At 3 P. M. the same party that we had dislodged at the fort opened fire from a Dyak village, here two of the "Iris" boats from some mismanagement fouled each other and were carried away, our cutters were the only two engaged. The Malays paddled like devils while a heavy fire was kept up by our 3-pounders. A little before we reached the rascals, I saw them deliberately shoulder their guns and run into the jungle, we landed and burnt down the village, after pulling a few miles further night overtook us and we came to. Our friends from Brunei made an incessant noise all night, shouting, firing and beating gongs for the purpose of frightening the enemy. One man harangued the dusuns half the night in a loud voice. He seemed to be a facetious character by the roars of laughter that followed each sentence, the noise at length grew so disagreeable that we were obliged to put a stop to the orator. I inquired into the meaning of his speech, and learnt that he had been inviting the Dyaks to bring their goats, ducks, fowls, and other eatables, for that was all we wanted and

that their persons would be protected. The kind invitation they however very wisely did not accept. About 2 A.M. an alarm was given that we had been attacked, but it proved to be the arrival of a prisoner that had escaped from Hajee Saman and who had sought the Rajah's protection, this man had been carried away from Brunei by the Hajee.

Monday, 17th—Having breakfasted, got underweigh, all the boats using paddles, the river being too narrow for oars; proceeded about 10 miles, till we came to a very extensive Dyak village, deserted. After destroying it, the Rajah hearing that there were no other villages near, ordered the retreat. While off the last place heard that our allies had been attacked on the passage up, several were wounded, one poor old fellow I saw had been hit twice, one ball passed through the fleshy part of his shoulder, the other lodged in his right side. A young man I saw had been shot in the leg and from the natives we learnt that several had met the same fate. On receiving the order to retreat, such a scene of confusion ensued that defies all description. The natives all pulled as hard as they could fearing to be left behind, because the Dyaks generally singled out the last boat for their attack. The consequence was that the boats were quite unmanageable, there they all were running into each other, then into the banks, our allies yelling and discharging fire arms in the air, and talking at the top of their voices, to frighten the enemy, but all was of no avail. The Dyaks ran along the banks and discharged their sumpits at the boats and with muskets picked off their assailants with unerring aim. About 3 P. M. we got to the fort first taken, the sides of the river below it are lined with mangrove jungle, so we were unmolested. On reaching the ships found that of our party one man had been shot dead in the "Iris" cutter, another in the gig hit in the knee, 2 or 3 wounded by sumpits and a man of the pinnance had a stake through his foot. In the "Phlegethon" cutters one man had a stake through his foot and several wounded with sumpits, the wound from the latter is not at all dangerous though said to be poisoned; the wound heals in a very short time if sucked immediately after receiving it.

18th. Left for Labuan with a number of prahus in tow. On clearing Pulo Tiga, we were obliged to cast them all off on

account of the heavy sea which impeded the vessel's progress. Anchored in Victoria harbour at 6 p. m. Mr Brooke on board.

19th. Stood across to Brunei, the "Hazard" had been left at Mooara point, as guard ship, ran alongside of her and received a guard of Marines, Serjeant and 9 men, then steamed up the river and took up our old station off the batteries. Mr Brooke recommended a strict watch to be kept day and night. A great deal of business going on between the Pangerans and Brooke.

20th. Heard that the Sultan was living up the creek with a tribe of Dyaks, was very miserable and wished to come to some arrangement with Mr Brooke. The latter and R. paid Pangeran Mumein a visit to-day.

21st. It is said the Sultan has come down and is residing with Mumein. Mr B. will not see him.

22nd. Some papers were brought off signed by the Sultan, we understand that Labuan is ceded to the British or that they are allowed to work the coals. Brooke has not to pay 2,000 dollars per annum as hitherto for Sarawak, but at his death his successor is to pay 4,000 instead. Gave the people notice that we were to leave for Sarawak on the 24th.

23rd. Pangerans Muda Mahomed and Bahar have resolved on going to Sarawak with their families and slaves.

24. Left with the Pangerans for Sarawak ; met the "Iris" at the mouth of the river. Brooke went on board and returned in an hour.

26th. Steering towards Sarawak.

27th. Sighted two suspicious looking prahus, made towards them, on approaching a little observed a small boat trying to escape from the larger craft, at 8 boarded the small boat, found her to be a trading vessel from one of the Natunas, bound to Sarawak, the commander was ignorant of the character of the large prahus, they were now a great distance off and running with a fair wind to the N. W. The Engineer on learning we intended going in chase, came aft and reported the fact that there were only 5 hours fuel on board, had to abandon the prahus and stand into the coast ; ran into the Egan, R. proceeded to the town and made arrangements for fire wood.

28. Left for Sarawak.

29th. At 3.40 P. M. anchored off the Moratabas, Mr Brooke left for Kuching.

30th. Steamed to Mr Brooke's and landed the Pangerans.

31st. Took in wood at Santibong and left on the 1st of September for Singapore. Captain Elliot of the Madras Engineers on board. After our departure from Brunei Captain Mundy took possession of Labuan.

Whilst in Borneo I collected from conversations with different persons the following imperfect notes regarding the island and its inhabitants. The Malays keeping no registers or journals it is very difficult to arrive at any truth, and it is therefore only from tradition that any account of their arrival in the country can be obtained. All the intelligent natives concur in stating that the Malays arrived before the conversion of the nation to the Mahomedan faith, which occurred in the 15th century. The original settlers were most likely pirates, who in those days sailed in large fleets of 100 or more vessels with 50 or 60 men in each. On reaching Borneo they established rendezvous on the coast, from which expeditions were sent out in various directions and all returned to the same spot where the booty was divided. On occasions they managed to get hold of European or Anglo-Indian ships bound to China, or the Phillipines. In time many of the pirates forsook the sea and married Dyak girls. The population soon increased and in a few years the pirate haunt would be converted into a crowded village. This seems probable from the few Malays settlements on the East Coast; the latter are inhabited by natives of Sulu, Macassar and neighbouring islands. The different villages on the West Coast claim distinct origins, the Malays of Sarawak from Linga on the East Coast of the Malay Peninsula, Sambas from Sumatra &c. All the settlements from the Dutch territory are tributary to the Sultan who resides at the city of Brunei on the N. W. Coast. The aborigines are called Dyaks, (the letter *k* is dropped by the Malays in pronouncing the word,) they are divided into a great number of tribes under separate chiefs and at enmity with each other. From their complexion, shape and features, they seem to have sprung from the Chinese. In general they have a great aver-

sion to the Malays and carry on an incessant straggling warfare with them. A few tribes have been civilised and reside with the Malays very peaceably in appearance. They are more muscular than the Malays of Borneo. In habits and customs they are perfect savages, living far inland, existing principally on natural productions, wild fruits, roots, &c., and rice and other edibles they can get in their warlike excursions. The Malays are in great dread of them, and build their houses from 18 to 30 feet high, clear of their spears. Their mode of attack is singular, they come down within a mile or so of the devoted village and wait for night. On the ebb making, they come down, murder the inhabitants, get all the property they can, set fire to the village, and make off to the interior with the flood. In their international wars, they collect large fleets and go many miles to attack an inimical tribe. To do so, they are obliged to put to sea, and will attack and plunder any boat they may meet. Before Mr Brooke's arrival it was not safe for a native boat to make a voyage from Brunei to Sarawak, or vice versa. In 1844 and 1845 expeditions were sent into the country and several Dyak villages destroyed as related by Captain Keppel in his work. The chastisement then inflicted has restrained them very much and at this period; boats may with safety sail between Owhai and Sarawak, beyond that Mr Brooke has no power. He is the Rajah of the coast between Pt. Dattu and Owhai, an extent of about 100 miles, he appoints the chiefs and conducts the government of the country. As trophies the Dyak collects the heads of his enemies, which are smoked and hung up in his house, an unmarried man cannot obtain a wife unless he has slain his foe and can show the head or more than one. In some of the Dyak villages, which, as described before, may be contained under one roof, fully 100 heads may be seen hanging to the rafters. The Dyaks are very gentle and kind when civilised, those near Mr Brooke were always delighted to see Europeans and showed them every attention when the latter happened to visit them. The Dyaks, like all barbarous nations, use the most simple weapons of war. The spear, bow, shield, club and sumpitan are their usual arms, those near the coast have obtained fire arms from Malays and Europeans. The sumpit is a small arrow of hard wood, at one end a piece of Indian cork is fixed which fits a tube

or hollow cane 8 or 9 feet long, the arrow is blown with the mouth through the tube at the enemy, the sharp end of the sumpit is steeped in poison, not very virulently, for several of our men were wounded by them and were soon healed. Minerals of various kinds are got in the island and from what I saw of the soil to the N. W. and about Sarawak I consider it exceedingly rich and productive.

ETHNOLOGY OF THE INDO-PACIFIC ISLANDS.*

By J. R. LOGAN

LANGUAGE.

PART II.

THE RACES AND LANGUAGES OF S. E. ASIA CONSIDERED IN
RELATION TO THOSE OF THE INDO-PACIFIC ISLANDS.CHAPTER V. (*Continued*).

ENQUIRIES INTO THE ETHNIC HISTORY AND RELATIONS OF THE DRAVIDIAN FORMATION,—EMBRACING NOTICES OF THE FINO-JAPANESE, CAUCASIAN, INDO-EUROPEAN, SEMITICO-AFRICAN, EUSKARIAN AND AMERICAN LANGUAGES.

Sec. 6. THE SEMITICO-AFRICAN LANGUAGES.

1. GENERAL CHARACTERS.

THE Semitic (properly Shemo-Hamitic) formation, as we now find it, is strongly distinguished by the general character of its phonology, including the structure of its words, from most of the African languages. But the connection between the two linguistic provinces is so complex, and, in many respects, so intimate, that, unless it can be clearly shewn that the affinities are mainly the result of contact between systems originally independent and discordant, it will be best to treat both provinces as forming one great alliance. To a certain extent the Shemo-Hamitic traits of the North and Middle African tongues may be traced to Arabic, to Phœnician and above all to Himyaritic influences, operating during periods embraced in ancient and modern history. But the affinities between the two provinces ascend into pre-historic and even pre-Semitic times, for in Africa we find some formations closely akin to the Semitic but not derived from it, and others which preserve various forms of proto-Semitic. The characters common to Hottentot, Egyptian and Semitic prove that one of the earliest African formations—if not the most archaic of all—was a very crude form of proto-Semitic.

For the reason previously mentioned† the present notices of the

* Continued from page 79.

† Vol. V. p. 211. *Introductory Note*.

Semitico-African formations must be still more brief and general, with reference to the multitude of distinct languages and their complex relations, than those of the preceding alliances.

The following are characteristics of nearly all the Africo-Semitic languages. A powerful phonology; phonetic rhythm (trochaic); the power of phonetically modifying and combining roots by elision, transposition, and mutation of elements, and shifting of accent or tone; monosyllabic roots, mostly active; a generally dissyllabic structure; ideologic crudeness of roots; their susceptibility of becoming distinctively substantival or attributival, and of expressing—in nominal as well as verbal or assertive forms—various kinds and degrees of simple and complex action, by formative particles which are phonetically united to them, and are capable of being compounded to a certain extent, to express further generic modifications of being and action—(*e. g.* causation, intensity, potentiality, transition, reciprocity, action for another or for one's self, the agent, the instrument or means, and the place, of action, are so expressed); the great use of minute phonetic elements in denoting these modifications of action and other relations, such as time, number, sex, direction, possession, and the pronominal relations; the tendency to combine these elements (*e. g.* the tense particles with the verbal formatives or with the pronouns, or with both; the pronoun with the directive or adverb &c.); the power of treating compounds of roots and formatives as new roots or stems; the frequent occurrence of flexional and quasi-flexional traits; the remarkable tendency to harmonic reflexion of particles to denote modifications and relations; the various forms of the pronouns, unattached, attached, subjective, objective, possessive &c.; the minute discrimination in the formatives of kinds and modes of action, and the vague or generic discrimination of time, direction of motion and relative position, (hence the expression of present and future, or past and future by the same particle, and the use of one particle to denote motion to or from, and position at, in, on, with &c.); the expression of the possessive relation by apposition, and of assertion (the copula) and connection by pronouns and definitives; the extensive use of definitives, sometimes separately but more generally as prefixes or postfixes to nouns, and some-

times even to pronouns; the paucity or limited use of conjunctions, &c.

There is considerable variety in the phonology of the known African languages. In general they are highly sonant, vocalic, harmonic, fluent and euphonic, while some present a strong contrast to the prevailing character. In most the different classes of consonantal sounds are well discriminated. They are, in general, pure and simple, and the sonants are chiefly used. Compound vowels and consonants appear to occur in all. The most prevalent of the latter are *mb* and *mp*. *Nk*, *nt*, *nd* are common. *Dg*, *gb*, *kb*, *bp*, *bm*, *kr*, *kh*, *rh*, *pml*, *blm*, are found in some. Aspirates and sibilants are generally characteristic of the phonology,—*ds*, *ts*, *dz*, *tsh*, &c. Amongst the compound consonants may be reckoned those in which *w* occurs, e. g. *kw*. In some the sonant dentals and palatals are not well distinguished. The vocalic tendency is strong. In most of the southern and several of the middle languages every syllable ends in a vowel; in others nasal terminals also occur; while varied consonantal endings are chiefly found in the north and in some of the middle languages,—Woloff, Bullom, Timmani, Tumali, Fazoglo, most of the Abyssinian tongues, Coptic, Berber. The vocalic tendency appears to be in full operation throughout southern Africa (save in Hottentot) and the greater part of the central region. Very attenuated vowels occur in Malagasy and Hausa, as in Hebrew. Intonations having a phonetic value are found in some languages, and accent and quantity are sometimes availed of to distinguish words otherwise homophonic. Labio-nasal initial sounds, *mp*, *mb*, &c. are found in many, being generally made with the lips closed or nearly so. They occur in Vei as a kind of nasal hum. Final nasals are common, and several languages are remarkable for their strong nasal phonology.

Amongst the highly harmonic and vocalic languages we may notice the Malagasy; all the known members of the great southern family, from Suaheli and Mpongwe to Sechuana; the Vei, Yebu, Yoruba and most of the other Nigerian tongues, with Hausa in the western part of the middle region; and the Galla, Shankala, Dalla and Nuba in the eastern. The phonologies of most of these languages are correctly described as musical. The

love of harmony pervades all speech, from the union of sweet and sonorous syllables in words, to the rhythmic and euphonic stream of sound that rolls or dances in long sentences. It is hardly possible to speak inharmoniously in the more agglomerative of these languages, and the least art suffices to produce vocalic echo, rhythm, alliteration and other euphonic amenities of speech. It is to be remarked however that the sonant tendency is in excess, and the aspiration too strong. *Z* and *ts* are too much used, and in some languages the *r* is too strong, and its combinations, such as *tr*, are not always agreeable. The vocalic sounds are also in general too strong and broad, and not sufficiently varied.*

The Hottentot, in some respects, presents a remarkable contrast to the prevailing phonetic character. It has a peculiarly barbarous and harsh phonology. Amongst its sounds is a click which, like the tones of S. E. Asia, admits of several degrees. These are produced by the tongue touching the side teeth, the front teeth or the roof of the mouth. It has singing tones, strong and harsh aspirates, and a great variety of strong gutturals, some being quick, rough gurgling or croaking sounds, sometimes combined with disagreeable nasals. The click is also found in the Sechuana and Kosah. In these and the other Kafir tongues there is a lisp with *s*, *sj*, and *tj*, and a stammering with *l*, *sl*, *kl*, *tl*. The Makaronga has a whistling sound. These facts, with the existence of intonations, shew that Africa preserves considerable traces of a primitive phonology, and enable us to form some conception of the barbarous strength which it must have possessed, before it was emasculated by the vocalic and euphonic disposition which now forms its most prevalent and most prominent characteristic. Even in the more consonantal languages this tendency is very observable.

The northern tongues most closely allied to the Semitic have, like the Asiatic members of that family, a more strong and consonantal phonology than the other African languages save the Hottentot. But some of them are now vocalic. Even in the Hebrew and Arabic there has been considerable emasculation. †

* All these remarks are applicable to Malagasy. The broad sonant vowels *a* and *o* most often—and the same vowel frequently runs through many successive syllables, e. g., *fahatsarana*.

† "In the Hebrew as well as in all the Shemitish dialects, the strength and harshness of pronunciation which characterised the earlier periods of the language, gradually gave way to more soft and feeble sounds. In this way many nice dis-

From the varying commutations, elisions, substitutions and incorporations attending the junction and connection of words and particles, the same word appears in many different shapes. Sometimes its initial letter is displaced by one to which it has no phonetic alliance; sometimes one half of a dissyllable vanishes, while the remaining half is so disguised by its intimate amalgamation with another word or particle and by changes in its letters, as to be hardly recognizable. This protean character is in some languages increased by the capricious interchange of allied letters.

While in general phonetic and ideologic characters the African formations have so much in common as to constitute one alliance, it is remarkable that their vocabularies shew comparatively little agreement, and that even the formative words and particles are very varied. The two facts prove that the existing families or their prototypes diverged from a common source at an extremely ancient period, that they have long enjoyed an individual development, and that the metamorphic power displayed in them is great. The last evidently resides in the fluent and flexible phonology which, save in a small province, has never known the restraint of writing. Words are plastic, yielding to every tendency of the euphonic and agglutinative habit. The faculty of recognizing the identity of the primitive words when broken, mixed and variously disguised by euphonic mutations is necessarily strong, but in the lapse of time many combinations so formed must become still more altered, until the sense of their composite and derivative character is entirely lost.

The most striking ideologic character of the Semitico-African languages is the extent to which they undisguisedly lean upon pronouns (including definitives in that term). In the monosyllabic languages, and even in the Scythic, collocation, with the possessive and participial idioms, are relied upon to give form and consistence to speech. In the Indo-European family the pronominal framework has been concealed by the structure that has been raised upon it, and that now appears to cohere by its own internal adjustments and flexions. But in the Africo-Semitic

tinctions of the earlier pronunciation were neglected and lost."—Gesenius (Grammar.) The Semitic languages generally are remarkable for their strong gutturals. The Gara, like some Hotit not dialects, is "intensely guttural", and this was probably a characteristic of all the archaic Semitico-Libyan phonologies. Hotitot is probably the best preserved example.

alliance speech is still seen to depend on the pronominal appliances by the aid of which it is constructed, and which alone hold its various parts together. Pronouns convert the roots into substantives, indicate their sex or genus and number, and connect them with each other and with qualitives, verbs and relational words. Pronouns become abstract assertives (verbs absolute or substantive), unite with other roots of all kinds and raise them to the character of verbs. Pronouns even serve, by variations in their forms, or in the mode of their phonetic union with the root, to indicate tense. The Africo-Semitic languages are thus in a high degree subjective. The personal idea—the contemplation of all phenomena under their relation to the speaker and hearer—is still paramount and obtrusive. In the archaic basis of the Semitico-Hottentot formation the two human generic definitives, masculine and feminine, are even transferred to all other objects. So that every substantive whatever is literally considered and spoken of by “me” and “you” as a “third person,”—as “he” or “she.” The pronouns (1st, 2nd and 3rd) are essentially assertive as well as definitive or substantival. “I” not only indicates the speaker, but affirms his existence. “He” by itself, or when applied to substantives, had the same power. “He-house—” not only indicated the house, but, when necessary, implied also “it is the house.” The connection between the persons and other things was at first indicated by the possessive notion, as in all primitive ideologies. “My house” was “*he-house I*”, and this became also equivalent to “it is my house.” “Thy sleep” was “*he-sleep thou*,” and this became also equivalent to “thou sleepest.” Many of the Africo-Semitic languages, including the Semitic, have hardly advanced beyond this, although the variable modes of combining the pronoun with the root have introduced some flexional refinements. In a considerable division the connection is indicated by a repetition or reflexion of the pronoun of the leading word in all the subordinate ones.

There is one species of purely phonetic and euphonic flexion which is found in all the Africo-Semitic languages, subserving various ideologic purposes, and which must therefore have been a

characteristic of the most archaic mother formations. This consists in the transmutation of sounds into allied sounds,—surds, for instance, into sonants, or one vowel into another. Definitive prefixes are, in many languages, thus converted from singular to plural. In others, the plural is formed by euphonic changes in the final vowel, but this vowel itself appears, in general, to have originally been a postfixed definitive. Transposition and reduplication of the phonetic elements, and changes in their accent or quantity, are also availed of. Instances of this euphonic flexion are found in the comparatively hard and congealed phonology of the Assyro-Berber languages, as well as in the soft and fluent phonologies of South and Mid Africa. It is clear, therefore, that the rudimental Africo-Semitic formations were, to a certain extent, euphonicly inflected. Words had ceased to be crude, and had become plastic and synthethic. A tendency existed to indicate modifications in the radical idea by slight mutations in the radical sound which represented it. The only doubtful point is whether substantial roots had become regularly mutable. My own conviction is that they had not, and that the flexion was confined to the generic or formative particles (essentially and primitively definitive)*. The agglutination and partial incorporation of these with substantival or objective roots, with the attendant euphonic changes, will, I think, explain the apparent root flexions which are found in most of the languages, and particularly in the Assyro-Berber and some of the Mid-African.

In the relative position of words in speech there are some extensive agreements, although the differences are more numerous. Possessives and qualitives are almost universally placed after the word to which they refer. The pronouns do not in general directly unite with the specific verbal root or reflect themselves in it. In many languages they unite with the generic assertive or time particles and even with prepositions or adverbs. The auxiliary verbs thus formed are generally attached to the root. Most of the Semitico-African languages have negative forms of

* The definitives and their formative derivatives are remnants of the monosyllabic era, in which there was necessarily a great economy of sound. Slight changes or flexions in the same *phonetic* root produced distinct glossarial roots. With reference to the pronouns in particular, it appears probable that the difference in sex, combined with an identity in other respects, was the primitive source of

the assertive like Scythic and Dravirian. In the Semitico-Berber languages and partially in some others the pronoun is directly combined with the root.*

As the expression of connections and modifications by repetition of definitives, or by euphonic echo or mutation, is the most striking of all the general characters of the Africo-Semitic languages, I shall add some illustrations. In all the Zimbrian or South-African languages, the initial definitive of the substantive reflects itself pleonastically in the connected particles, adjectives, verbs &c. In Suaheli the causative may be formed by vocalic

definitive flexion. The same monosyllable, slightly varied in sound, was used to denote "man" as well as "woman," "father" as well as "mother," "he" and "she," and probably also "I" and "thou"; "this," "that," "here" "there" &c. The two primitive correlative or sex terms, from which these more abstract terms were evolved, must have been mere definitives. Even in monosyllabic and crude languages a flexion is found in definitives, and often in masculine and feminine terms. When harmonic phonologies were developed, it is probable that analogy was at first the principal suggestive source of new flexions, and that these were chiefly originated in definitives and other generic particles. But it is not reasonable to limit the flexions of the monosyllabic era to masculine and feminine particles. It extends, in existing monosyllabic languages, to many other roots, and it is probable that most pure flexions had their source in that era, the harmonic and agglutinative phonology merely combining roots and definitives, and rendering that an apparent flexion of the compound which had previously been a flexion in one of the elements, when it existed as an independent monosyllabic root. For example, if, in a monosyllabic stage of a language, the words for "man" and "woman" or "he" and "she" were, by consonantal flexion, *pa* and *ma*, or, by vocalic flexion, *ba* and *bi*, the masculine definitive might, in the agglutinative stage, become final *p* or *a*, and the feminine final *m* or *i*. By similar phonetic flexions the 1st pronoun was sometimes distinguished from the 2nd and the singular from the plural. Corroborations and illustrations of this view are found in all formations, from Chinese to Iranian and Semitic. See *ante* vol. vii. p. 60, (Burmese); 61, (Note on Chinese flexion); 110, 112, (Tibetan); 134, (Bodo); 201, 203, (Kol); 205, (Gond); 212, 216 &c. (S. Dravirian). See also the sections on Scythic and Indo-European.

* The tenses and persons of the Semitic conjugation present little that is peculiar. The verb is simply a noun with the pronouns annexed and agglutinated. In Egyptian and some of the South-African languages tenses occur which are formed in the same mode. The Egyptian present, like the Semitic preterite, postfixes the pronoun to the root. The Yoruba passive postplaces it in a contracted form. But in most African languages auxiliary assertive particles (corresponding with the verb absolute, or generic definitive used assertively) are joined in several tenses to the pronoun, as in Euskarian. In the Egyptian past and future the pronoun is postfixed to generic assertives. In Galla, Bornui and Hottentot all the tenses postfix the pronoun to the root; and to the pronoun Hottentot and Bornui and, in some tenses, Galla, postfix the generic assertives that mark the tense. In the subjunctive the pronoun is postfixed to the auxiliary and precedes the root. In the same way the Grebo of the Niger province postfixes the pronoun to the particles of the imperative and conditional. In Yebu, another language of the same province, the pronouns are also agglutinated with the assertives or tense particles, but prefixally. In the adjacent cognate and phonetically crude Yoruba the pronouns also precede the assertive but are not annexed to it. In the passive they follow the root in contracted forms. The great South-African or Zimbrian alliance has also tenses in which the pronouns are prefixed in contracted forms to assertives. In Semitic and most African formations, as in Caucasian and Euskarian, the pronouns have also annexed objective forms. These

augment. The prefixes of the agentive and objective words are reflected by a vowel, a consonant, or a whole syllable, in the assertive or verb. In several languages the plural is a purely

are found in the crudest African languages, such as Egyptian and Hottentot. The pronoun is also suffixed possessively to substantives in the Africo-Semitic, as in the Scythic and American formations, and this explains its usual position with assertives and other roots used as verbs. In Tumali the pronoun is preplaced and reflected prefixally in the root, or in the assertive prefix of the tense in some cases.

While the Semitic Preterite follows the common African, Indo-European, Iron, Scythic and Dravirian rule, by placing the pronoun after the root—as in the possessive form with nouns, to which the personal forms of verbs are referable—the Aorist combines a pronominal prefix with a postfix, as in American, Yeniseian, Caucasian, Nubian and some other Mid-African languages, and Zimbian, the postfix however varying in its function, being pronominal, sexual, numerical or assertive-temporal. A few examples will best illustrate the affinity between the Semitic Aorist and the Americo-Zimbian forms.

From the uniformly postfixual position of the pronoun in the Egyptian, Galla, Bornui (save in the 3rd person) and Hottentot verb, this appears to have been characteristic of the archaic Semitico-African formation. The prefixual pronoun of the Semitic Aorist indicates that the Caucasian influence which so deeply affected the Mid and South African languages partially modified Semitic also. This prefixual position of the agentive pronoun is Yeniseian and American, and it must have originated in a language which preplaced the possessive pronouns.

SHAMO-HAMITIC—(Arabic).

(Aorist.)

S. 1	<i>akbolu</i>	P. 1	<i>nakbolu</i>
2	<i>takbolu m.</i>	2	<i>takboluna m.</i>
	<i>takbolina f.</i>		<i>takbolna f.</i>
3	<i>yakbolu m.</i>	3	<i>yakboluna m.</i>
	<i>takbolu f.</i>		<i>takbolna f.</i>

ZIMBIAN—(Suaheli).

(Present Imperfect).

S. 1	<i>mimi nipendai</i>	P. 1	<i>suisui tupendao</i>
2	<i>wawe upendai</i>	2	<i>ninui nipendao</i>
3	<i>yee apendai</i>	3	<i>wao wapendao</i>

WEST NILOTIC OR NUBIAN—(Tumali).

(2nd Preterite.)

S. 1	<i>ngi y-ir-in-e</i>	P. 1	<i>nginde n-ir-in-e</i>
2	<i>ngo w-ir-in-e</i>	2	<i>ngonda ngu-r-in-e</i>
3	<i>ngu ir-in-e</i>	3	<i>ngenda k-ir-in-e</i>

To show the nature of the combination and flexion (extending in the 2nd pers. pl. to the vowel of the root *en*) I add the present.

S. 1	<i>ngi yen</i>	P. 1	<i>ngi-n-da nen</i>
2	<i>ngo wen</i>	2	<i>ngo-n-da ngon</i>
3	<i>ngu en</i>	3	<i>nge-n-da ken</i>

CIRCASSIAN—(Absne.)

(2nd Present.)

S. 1	<i>sara scwisloit</i>	P. 1	<i>ha-ra-hacwisloit</i>
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phonetic flexion produced by euphonic permutation, augment &c. In the S. African languages the initial is thus modified in the plural. In Fulah, Susu, Hausa and Arabic the change generally takes place in the terminal syllable. In Coptic the inner vowel of the root is sometimes prolonged (uhor, "dog,"

2 *wa-ra ucwisloit*

3 *ui icwisloit*

2 *sa-ra s'cwisloit*

3 *ubart rcwisloit*

The glossarial agreement of the prefix of the 2nd person in Zimbian, Tumali and Circassian will be remarked. It also occurs *prefixed* in Yeniseian. The full forms *we, wa, wo* &c. are also the separate pronouns in all these formations save Tumali, in which it is contracted to *o* with the def. pref. *ng*.

The Scythic, Dravirian and Indo-European mode of combining the pronoun and verb agrees with the Semitic Perfect, the Egyptian Past, and the common African forms in which the pronoun is postfixed to the word used assertively or to definitives used as absolute or tense assertives.

EAST NILOTIC—(Galla.)

(Present.)

S. 1 *adema*
2 *ademta*
3 *adema m.*
ademti f.

P. 1 *ademna*
2 *ademtu*
3 *ademu*

(Pret.—Aorist.)

S. 1 *ademe*
2 *ademte*
3 *ademe m.*
ademte f.

P. 1 *ademnc*
2 *ademtani*
3 *ademani*

(Fut.)

S. 1 *ademufandyira*
2 *ademufdyria*
3 *ademufdyira m.*
ademufdyirti f.

SUDANIAN—(Bornu.)

(Present.)

S. 1 *ruski*
2 *rumi*
3 *shiru*

P. 1 *ruye*
2 *ruyu*
3 *sha-runi*

SCYTHIC—(Turkish.)

(Preterite of the definitive *i* used as the assertive absolute.)

S. 1 *i-d-un*
2 *i-d-un*
3 *i-d-i*

P. 1 *i-d-uk*
2 *i-d-un-uz*
3 *i-d-i-ler*

In the second and third persons plural, the plural particle is independently preserved as in the Semitic Perfect (the Aorist or Imperfect also postfixing it although the pronoun is prefixed). Comp. the Galla 2nd *adem-ta-ni*, 3rd *adem-a-ni*.

uhör "dogs"). The following are examples of the reflection of the substantive, or its definitive, in the qualitative and possessive. Suaheli,—*juo jango*, book my; *mtu uango*, "man my"; Kafir, —*umfazi omde*, "woman tall"; *abantu bonke* "people all," *ingubo omnyama* "garment black." In Mpongwe the imperative is formed by changing the initial of the assertive into an allied consonant, e. g. *b* into *w*; *d* into *t*; *j* into *y*. Such instances—and they are not rare—are purely phonetic flexions. But, in general, the prevalent reflexion and echo of sounds may be resolved into an archaic pleonasm, more or less concealed by the mutations and contractions of the euphonic phonology. Even the purely phonetic flexions have probably been mostly generated by the same pleonastic and euphonic tendencies. All rude languages are pleonastic. In the progress of development the pleonasm becomes masked or disappears. Abstract and relational terms link substantive words together. But in archaic or crude ideologies the connection is lost unless the substantive word or its distinctive definitive or pronoun be repeated in expressing its relation to another word. In Australian, Polynesian, American &c, the pleonasm is undisguised. In the Indo-Germanic languages it has been lost or refined into abstract flexions. In the African families it is in a middle stage.

The characters in which the Africo-Semitic languages differ are numerous, and of various degrees of importance. A great number of the languages, as we have seen, are distinguished by a highly fluent, harmonic and vocalic phonology, while others are consonantal, and generally harsh or more primitive. To the second class belong the Berber-Semitic alliance; the Egyptian, Coptic and Bishari; the Nubian, Abyssinian and other languages of the N.E. The South African family, from the Suaheli and Mpongwe to the Kafirian, and the adjacent insular Malagasy, are highly vocalic, and the same tendency appears in several of the northern or consonantal class, e. g. the Dalla. The Galla group exhibits both tendencies. The Galla itself is highly vocalic, consonantal endings being rare. In the Shiho and Danakil the proportion of consonants is small, while Saumali is decidedly consonantal. The Nubian languages are consonantal, but the Nouba of the Nile appears to be vocalic, the words that end in consonants in Kensy

taking final vowels in it. The Hottentot languages are consonantal, but the vocalic tendency is strong, and most of the consonantal endings are nasals and labials. Monosyllables are so abundant in some languages, (e. g. Yoruba) as to affect their general structural character. While the northern languages and the cognate Semitic have an aversion to compounds, save of roots with particles, the Zimbian, some of the Middle tongues and Malagasy, are highly agglomerative. Compound or descriptive words are hence rare in the one class, and extremely abundant in the other. From the same cause the power of compounding the formatives to express complex relations is very limited in the Assyro-Berber tongues, while in the Galla, Tumali, Zimbian &c, it is considerable, and in the Malagasy great. The reflection of vowels and consonants to indicate connection is found in all classes of the African languages, save the Berber-Semitic. In different languages, the article, the numeral, the qualitative, and the pronoun, have their proper initial displaced by that of the substantive with which they are connected. In some languages the pronoun and even the agentive noun is thus euphonically echoed by the verb. Number is expressed by particles in Zimbian, Yebu, Yoruba, &c, by particles and internal change or flexion in several members of the Berber-Semitic alliance, in Galla, Tumali, Hausa, Fulah and Susu, but not in Malagasy, Yebu, Yoruba &c. Sex is indicated by single letters or particles in Berber-Semitic, Hausa, Hottentot &c, but not in Malagasy, Yebu, Yoruba and some others. It is indicated in the qualitives in Berber-Semitic, Galla, Hausa &c, and in the pronoun in Hottentot, Berber-Semitic, Egyptian, Coptic, Nubian and Galla. In Berber-Semitic, Galla and Hottentot all substantives have gender. Plurals and collective nouns are feminine in Berber-Semitic and Galla. Time is indicated flexionally or by single postfixed or prefixed elements (sometimes pronominal or pronominally incorporated) in Malagasy, Zimbian (save, apparently, Sechuana and Angola), Hottentot (present), Yebu, Akra, Fulah, Hausa, Galla, Tumali, and Berber-Semitic; * and by words or full particles in Sechuana, Angola, Susu, Vei, Yoruba, Egyptian, and Coptic.

* Example. In Zulu the agentive pronoun changes its vowel to *a* in the Past and to *o* in the Future. In Malagasy the assertive prefix is *ma* in the Present, *na* in the Past and *ha* in the Future.

While all the languages have flexional tendencies, there is a considerable difference in the extent to which they are carried. Changes in words produced by junction with other words are common to all the languages. So are formative and tense particles or flexions, and postfixed or prefixed forms of the pronouns. Pure flexion by internal change is seen in several of the formatives, in the irregular or "broken" plurals of Arabic, Berber, Galla, and some other Mid African tongues, in the time flexion of the Akra and Yebu pronouns, and in several of the Semitic formative modifications of the verb. Flexion by added particles is seen in the formatives of all the languages, including many of the Semitic. The Egyptian has flexions of this kind in the masc. and fem. of pronouns, the fem. of substantives, the dual and plural, and, normally, in the post-fixed contracted forms of the pronouns; the Berber-Semitic in the *m.* and *f.* of pronouns, substantives and qualitives, in the dual and plural, the construct form, the personal, sex and time forms of the verbs; Tumali in its plural terminals, its reflection of the pronoun in the verb, of the substantive in the qualitive, and of the number of the substantive in the qualitive, pronoun and numeral; Galla in its sex forms of substantives, qualitives and pronouns, the post-fixal directives, the personal, sex and time forms of the verb; Hausa in the *m.* and *f.* of substantives, qualitives, definitives and pronouns; Zimbrian in its euphonic modified prefixes and terminal vowels; Hottentot in its definitive terminals for number and gender, its personal and tense particles; Malagasy in its time initials.

The character of the sentence varies considerably in different languages. It is in general direct, simple and even crude. In a few of the languages there is little connection between the words, save that arising from apposition. But euphonic reflection of definitives and pronouns, agglutination and combination, are found to a small extent even in these, while in the greater number they exert a powerful influence on the structure. Pleonasm is much used, sometimes in a very crude and cumbrous manner, as in Hottentot, but generally disguised in delicate euphonic permutations, reflections and elisions. Where the words in connection, such as the article, pronoun and substantive, the substantive and qualitive, the pronoun and verb &c., are thus linked by euphonic

pleonasm, or when the number and gender of one word are reflected by others, the sentence acquires much of the character which it has in the more flexional members of the Indo-European alliance, although the pronominal basis and the pleonasm are much more obtrusive. In collocation there are considerable variations, but, in general, it is direct, with the formatives and directives prefixed and preplaced. This applies to the Northern and Southern languages and many of the Middle, but amongst the latter there are some which are postfixual and postpositional in their formatives and particles, and inverse in the general arrangement of the logical components of the sentence. This is chiefly the case in the Nilotic or Galla-Tumali group, which, in this respect, may be said to belong to the Asiatic postpositional alliance, and not to the proper Semitico-African. Several of the Negro languages to the west of this group are also postpositional, and as the inverse collocation of the object and the verb has been observed in the Mandingo family, it is probable that it extends to most of the other postpositional languages of the same quarter. It is remarkable that in the Semitic family the Aramæan has also the Burmah-Tibetan, Dravirian and Scythic inversion, while the Arabic reverses the position of the verb. In the Egyptian also the verb commonly precedes the agent. But with these exceptions the Egyptian and Berber-Semitic are direct in their collocation. As the Hebrew is purely African in this respect, it is probable that the inversive collocation of the Aramæan was superinduced by its proximity to the Turanian linguistic formation, which appears to have been frequently drawn southward into the Aramæan province, by the great attraction which the civilisation and wealth of the Euphrates basin always had for the nomadic Scythic nations beyond it.*

Throughout the Africo-Semitic formations there is a strong fundamental congruity, not only in the nature of the generic modifications of being and action denoted by the formatives, but in the kind of specific or concrete words which are produced by them. In the African languages there are also some distinct coincidences in the glossarial forms of the particles, pointing to some common

* The archaic relation of the Semitico-Libyan to the Scythic formation is remarked on in a subsequent page.

mother-tongue in which they originated. Thus the sibilant *sa*, *za*, &c. is the causative servile not only in most of the South-African languages, but in several of the northern, as the Galla, Hausa, Berber and Egyptian. As the same formative and definitive roots vary in their applications in different languages of the same formation, and sometimes even in different dialects of the same language, this particle must be considered as Semitic also. It is found in Amharic and Himyaritic under the Berber form, *ie*, and with a causative power. The Arabic prefixal *es* is desiderative and requisitive, and has therefore a causative or inductive element. The Arabic *t'*, which has a passive force, is found in the Berber *it* (Newman). The South-African reciprocal *na*, *ana* &c. corresponds with the Arabic *en* and Berber *im*. The objective or relative form (denoting action for another or for an object) is in Kafir *ela*, in Mpongwe *ina*, and in Tumali *ani*, *ini*, *ia*, *andi* &c. The Suaheli *i*, *e*, is a contraction of the same root. With these forms may also be connected the Galla *da*, and Tumali *dga*, reflective and quasi-reflective, and the Hausa *da*, intensive or complicative. Their effect is to superadd something to the simple action, or complicate it. The same abstract assertive particle or verb substantive is found in many languages in the form *ala*, *ale*, *are*, *ar* &c. (Arabic, Egyptian, Berber), and, it may be added, in many foreign languages, including Scythic (*ol*, *on od*, &c. (and Malay (*ada*). Another assertive *ba*, *be*, *fa*, *va*, *ma*, &c. is very common, and it also is Aso-European (e. g. our own *be* and the Scythic *bi*). These and other assertives are much used with specific tense limitations as in Tibeto-Ultraindian &c. There is a frequent resemblance between the formatives and the definitives, and as many of the Asonesian formatives of action are clearly traceable to the definitives and directives used with substantives, and other formations present similar coincidences, it may be concluded that the same phenomenon is repeated in the African languages.* If this is the case it will probably be found that the great variety in the definitive prefixes possessed by several of the languages is not accidental or arbitrary, but that they are connected with an archaic classification of substantives (including

* See chap. iv. Sec. 1st (vol. vii. p. 112) Note § (Tibetan &c.)

actions), analogous to what obtains in some other families of language, and of which the distinctions of an imate and inanimate, human and non-human, masculine and feminine, found in several Africo-Semitic tongues, afford examples. It may prove, for instance, that the causative *s, sa, za* &c. is radically identical with the definitive of the same form, and that the latter originally denoted substantives which had a causative power or were the result of causation.*

It appears from this summary that the Africo-Semitic languages agree ideologically much more than they differ, and that it is difficult to select any particular character as the basis of a purely ideologic classification. We must therefore distinguish them by combinations of traits. This indeed is the only principle which can be adopted in the classification of languages. To apply it properly we must have varied examples of a ctual speech in each language, because in speech we not only find the sum of all the distinct characters, but what is of greater moment, we see to what extent each affects the language as a whole. Materials for a classification founded on the comparative character of speech are almost wanting in the African languages. We have hardly any genuine examples of native story or song, and translations by Europeans into African languages cannot be depended on as fully exhibiting the native idioms. Adelung has collected several examples, chiefly of the *Pater Noster*, but they are frequently unaccompanied by literal and analytic translations.

The principles on which Dr Prichard has allied the Coptic with the Kafirian languages, and these with each other, and distinguished both from the principal idioms of Asia and Europe, are not free from objection, for most of the traits which he has assumed as distinctive, are common to the Coptic and Kongo-Kafirian with the Malagasy and most other Africo-Semitic languages, and to the Africo-Semitic with other alliances of the Old and New Worlds.

The Semitico-African languages rest upon a common archaic

* In Egyptian *s* was a form of the feminine definitive and also a causative prefix. The feminine or productive notion may be the primitive, and the causative the secondary one. With this may be also connected the pluralisive, augmentive and intensive powers it has in some languages. In Indo-European *as* in Semitico-Libyan and Galla, feminines and plurals are connected. In Tibetan *s* is active, intensive, agentive, and instrumental.

basis, but a succession of fresh developments, induced, as there are strong grounds for believing, by the influence of foreign formations, has affected different parts of the province very unequally. To shew the general effect of this I shall ethnographically notice the known languages under six classes. 1st, the Egyptian; 2nd, the Hottentot; 3rd, the Shemo-Hamitic or Assyro-Berber; 4th, the Zimbrian, South-African or Suaheli-Kafirian; 5th, the Mid-African or Galla-Mandingo; and 6th the Malagasy. The 1st and 2nd do not present any distinctive principle of development. They are simpler and cruder than the others, and, with some of the Mid-African languages, exemplify the most archaic stage of the Africo-Semitic formation, in which the crude monosyllabic basis is little concealed by a harmonic and agglutinative phonology and a consequent tendency to rhythmic dissyllables and flexions. In the 3rd group the agglutinative and elliptic tendency has received a great impetus and has then been arrested, leaving the language in a concreted and highly flexional condition. The 4th group contains an opposite principle of development, the phonology having become agglomerative, harmonic and vocalic in a very remarkable degree. The first distinguishable basis formation of the 5th or Mid-African group is the Egypto-Semitic or Semitico-Hottentot in its earliest and crudest stage, the roots monosyllabic, the phonology segregative. The gradual change from this primitive condition to the present will probably never be historically traced, but in the course of the developments, intermixtures and modifications which have made the Middle languages what they now are, two principal diffusive formations have prevailed, the harmonic, agglomerative and very reflexive South-African, and another which is less agglomerative and harmonic, and more agglutinative and flexional. Of the latter the Tumali may be considered as the best type hitherto discovered. Malagasy is entirely African in its characters, but presents a peculiar combination of them, evincing the great antiquity of its existence as a separate formation. Its main affinities are Egypto-Semitic and South-African, but it has special Nilotic traits also.

The preceding grouping is ethnographical. The *ethnological* classification which I adopt, and which will be justified in the sequel, may be inferred from the following terms, the explanation

of which it will be useful to anticipate. Semitico-African embraces all the Semitic and African languages and formations. The African division comprises two main branches,—1st, the *Libyan*, which agreed in its pronominal system and non-agglomerative phonology with Semitic or Shemo-Hamitic,—and, 2nd, the *Zimbian* which, with a Semitico-African basis, has some peculiar pronouns, but is mainly distinguished by its harmonic and agglomerative phonology, and the pleonastic reflection of its definitives. These two formations have been variously intermixed. Libyan is represented in its crudest state by Egyptian. Most of the North-African and Mid African languages are still mainly Libyan. Such are the Berber and Sudanian, the Galla and Nubian; and in the South the Hottentot and, in all but phonology, the Malagasy. A 3rd formation, less distinctly marked because some of its principal traits are Libyan and some Zimbian, prevailed in the upper Nile and may be termed the Nilotic, as it connects the Galla subformation on the one side with the upper Nubian on the other. Its distinctive characteristic is an inversive or Scythic structure. A 4th formation, less widely and deeply influential than the preceding, is the proper Semitic or Shemo-Hamitic, that is, Semitic not in its archaic Libyan or Egyptian-like stage, but in the agglutinative and flexional form which distinguishes it from all the proper African languages. To illustrate the application of these terms, it may be said that Egyptian and Hottentot are almost purely Libyan, but the former slightly Semiticised,—that Berber is Libyan more strongly Semiticised,—that Galla is Libyo-Nilotic deeply modified by Zimbian,—that upper Nubian is Nilotic very slightly modified by Zimbian,—that Hausa and Bornui are Libyan slightly modified by Nilotic and Zimbian,—that Mandingo is Libyo-Zimbian modified by Nilotic,—and that Malagasy is Libyan much modified by Zimbian,—the known South-African languages, with the exception of Hottentot, being the typical Zimbian. It should be added that the middle languages, particularly the Nilotic, have been affected by Semitic, and that its influence is even traceable, in a slighter degree, in Zimbian and also in Malagasy. As the first three of the ethnographic classes—Egyptian, Hottentot and Shemo-Hamitic—are all referable to one archaic formation, which may be termed the Semitico-Libyan,

and as the same formation appears to have been the basis one of Mid and North Africa and even to have preceded the Zimbrian over all Africa, a brief notice of its characters may usefully preface the first three of the following sub-sections.

It was harshly consonantal, slightly agglutinative, monosyllabic in its roots, but dissyllabic in its glossary owing to the annexation of definitives and other serviles to the roots. Its definitives distinguished masc. and fem., singular, dual and plural.* The definitives and directives were generally postfixed, and the pronouns were also postfixed possessively and assertively. But preplaced and prefixed definitives were also used. The roots were mostly active or assertive. The formatives were generally prefixed and produced numerous glossarial modifications and applications of roots. In Hottentot they are postfixed to the root or placed between it and the pronominal postfix. The structure was simple and crude. The qualitative followed the substantive, and was probably not affected by its definitives in the earliest stage of the formation. In Hottentot it does not reflect any of them. In Egyptian it took that of number. In Semitic it takes the number, gender and case of the substantive. The peculiarities of Semitic are mainly attributable to a greater tendency to agglutination and ellipsis.

2. EGYPTIAN.†

Distinctive characters as compared with other Africo-Semitic languages:—Want of phonetic power and development. Hence a comparatively crude character of speech and paucity of flexional traits.

General characters:—Its phonetic range is somewhat limited, as it wants *g*; *d*, *l*, *ng*; *z*, *j*; *b*, *v*, thus showing a great deficiency in sonants. *H* and *m* precede other consonants, as in other African languages, in Ultraiidian &c. Bunsen notes the absence of

* In the Semitico-Libyan formation the definitives were 1st *t*, *s*, *sh*, *z*, &c; 2nd *k*, *g*; 3rd *m*, *b*, *p*, or *v*, also *mb*, *mp*; 4th *l*, *r*, *n*, *d*, also *nd*, *nt*. All were common or became so in some languages, but the 1st had acquired a feminine application, the 2nd to some extent a masculine, the 3rd a masculine and plural, and the 4th, particularly in the forms *n*, *d*, a plural one. *I* had a fem. and plural force, and *v* was plural. *N* was possessive and *s* intensive (assertive).

† C. C. J. Bunsen "*Egypt's Place in Universal History*" (Cottrel's translation); Ib. "*On the Result of the recent Egyptian researches in reference to Asiatic and African Ethnology and the Classification of Languages*," (Report of the British Association for the Advancement of Science for 1850 p. 254); Vater and Adelung, "*Mithridates*." Prichard, "*Researches*," ii.

b, *g* and *d* as a peculiarity shared only, as far as he knows, with the Etruscan. But an absence of sonants is by no means a rare phenomenon in the languages of Asia and Asonesia. The phonetic and agglutinative power, although weak, pervades the language. Roots are compounded and their quantity is thereby affected. Pronouns and other particles are attached, in a contracted form, to each other and to substantive roots. In form the latter are generally biconsonantal.*

Pronouns and definitives are the most important ideologic elements, as in other Africo-Semitic languages. The absolute definitive (used demonstratively) has masculine, feminine and plural roots,† and is prefixed or preplaced, but it is not often used, while it is remarkable that all feminine nouns have the feminine definitive *postfixed* (in Coptic prefixed) in a contracted form, as in Hottentot and Assyro-Berber. There are also postfixed dual and plural particles.‡ The pronouns are Semitico-Libyan [see sub-section 4]. The 1st personal pronoun has only a generic or common form, in this agreeing with Semitic and differing from Hottentot,§ but, like both of these systems, Egyptian has masculine and feminine forms or flexions of the 2nd person. The pronouns are postfixed possessively to substantives.||

Roots are crude, that is they may be taken as substantives, qualitives or assertives. The verbal or assertive form is imparted,

* Meyer thinks the two radical letters were each vocalised or sounded separately, forming as it were two syllables, (bunsen p. 277), the rhythm being two arses. In many instances the root admits of an amplification similar to the Semitic, but "seldom or never without the biliteral coexisting with the triliteral root, and representing, in consequence, the more primitive form—the nucleus, as it were, out of which the amplified form has grown. Meyer has proved this by a series of examples, in which the amplifying letter is inserted, sometimes in the middle and sometimes at the end. For instance: *nk*, *ank* (I); *ht*, *htr* " (a horse)". The prefix in *ank* is certainly a definitive, and it is probable, from universal analogy, that the other added letters are also definitives as in Tibetan &c. *R* is preserved as a definitive in the third person *er*, *ar* (Coptic *are*, *ale*, *ere*, *ele*). It is a definitive postfix (*r*, *l*) in Dalla, Nubian (Koldagi) and some Nigerian languages.

† Masc. and Neut. *pa*, *pe*, *f* in *en-tu-f*, "*he*", *-f* postfix "*his*", *ef* postf. "*he*," "*it*," "*him*"; [Coptic, Hottentot *b*]. Fem. *ta*, *t*, *s*, in *en-tu-s*, *en-te-s* "*she*," *es* postf. "*she*," "*her*." Pl. *a*, *n* (postf.) These feminine and plural definitives are Semitic, Berber and Hottentot, and they are also very prevalent in the Mid African formations,—Tumali, Galla, Fulah, Yebu, Yoruba, Vei, Fante &c.

‡ Dual *zi* (a plural particle in other languages and connected with the fem. identical with the He-rew *s*, also a variation of the fem. def.); Pl. *u* (Semitico-Libyan, Yebu, Yoruba, Vei, Fanti, &c.)

§ Hausa also indicates the gender in the 1st pronoun like Hottentot.

|| Africo-Semitic, Scythico,-Dravirian, and archaically Indo-European (as appears from the personal postfixes of the verb.)

partly by postfixing the pronouns in a contracted or radical form to roots (i. e. possessively), and partly by uniting them to auxiliary particles used assertively (equivalent to verbs absolute). *

The same form served as an agentive and objective postfix, a striking imperfection compared with the analogous forms of Assyro-Berber and even with the Hottentot Ex. *ta-ef nek*, "gives-he-thee" i. e. "he gives thee"; *smen ten, smen het ten* (*s-*, causative prefix) "prepare yourselves, prepare heart (of) you"; *Suten neteru sskhaf*, "King (of) Gods enthrone-him," where *f*, the third pronoun must be taken objectively, Bunsen's free translation being, "the king of the Gods (who) him on the throne placed."

The collocation is generally direct and prepositional, the agent preceding the verb, the verb the object, and the substantive its numeral, qualitative, and possessive,—the last, when a pronoun, being postfixed in a contracted form. As in most other prepositional languages, the relative position of the possessive and the subject of possession may be reversed, by rendering the former independent of the collocation through a possessive particle. For substantives this particle was the widely spread *an*, *en*. † Pronouns are variously compounded with demonstratives to make them possessive in their preplaced or separate forms (e. g. "thy" *pai-k* masc. contracted to *pik*; *pai-t*, *pit* &c fem.)

None of the directives are flexionally incorporated with substantial roots. They are all prepositions, and some have a very generic relational power, as is the case with some of the directives in most other formations. The Poss. *an*, *en* is also ad-transitive, dative,

* The same definitives are used assertively in Egyptian, Euskarian, Indo-European, and Scythic. Egyptian has *er*, *ar*, &c found also in all these other formations. Egyptian uses *au* (Coptic ⲓ, ⲟ) an Egypto-Semitic and common African and Asiatic def (*a*, *u*, &c. corresponding with the labial def. and assertive). The Euskarian *au* is identical with the Egyptian. Egyptian also uses its common definitives assertively (*pa*, *pu*, *pui*, *tui*); so Coptic *pe*, *te*, *ne*, "he-is," "she-is," "they are." The negative assertive is *en*, *nen*. In the present the pronoun is simply placed after the root. Iri root, *iri-a*, *iri-ek* &c. (see examples of Egyptian and Coptic conjugation in the 4th sub-section, supplement A). In the complete or past, the particle *en*,—possessive, dative,—is used, followed by the pronoun; *iri-en-a*, *iri-en-ek* &c. In the future the assertive *au* is followed by the pronouns and these by the particle *r* (ad-transitive), the root being placed last. (*au-a-r-iri*, or *au-a-iri*; *au-ek-r-iri*, or *au-ek-iri*). The participial form is given by postfixing the 3rd personal pronoun, the particle *iu*, *i*, or the particle *ta*, *et*. *I* and *u* also form the participle. The passive is simply a participial form (*ut*, e. g. *aa-ut* "prayed to", *aa-ut-f* "he is prayed to."

† In Africa it is found in Hausa, Bornu, Malagasy &c. (*n*), Fanti (*ne*, *n*), Mandingo (*la*, *al*, *da*). It is found in Scythic and most other formations of the Old World (See Supplement to Secs. 2 and 3 *ante*, p. 61.)

instrumental, factive and assertive-completive or past. *Am*, *em*, *hem* is locative and instrumental. (Burman, *hma* locative, and assertive-present). *Er* (Coptic *e*, Hebrew *l*) is dative, ad-transitive, locative, possessive, assertive and assertive-future. * *Em-er*† denotes "from- up to." *Api* ("the head") is "upon." *Hra* ("the face"), is "on," "above," "to," "out of." *Hna* is associative, e. g. *hna*k "with-thee," *hna*f "with-him," *hna* Set "with Set" &c. The prepositions are compounded, e. g. *ha-api-s* "before-her"; *hra-api*, "over," "upon." Similar particles, simple and compounded, are used adverbially. The only one that can be considered as a pure formative appears to be the active and causative prefix *s* which has other definitive and personative uses (she, her, it, son, person.)†

Dravidian, Scythic, Caucasian, Euskarian and Indo-European carry us far from the crude types of S. Eastern Asia. In Egyptian we seem to approach these types again. In its general character we find much that recalls Tibetan, although its form is Semitic-African. In the Indo-European family the distinction of sex is partly indicated by vocalic flexion, and even Tungusian has a trace of this. Egyptian adheres to separate primitive particles as in Tibetan. Its labial masc. def. *f* (Coptic *b*, *p*), corresponds with the Tibetan *pa*, *va*, *ba* ("man," masc. def., also neuter as in Egyptian.) None of the prepositions and adverbs have become flexions or even agglutinated formatives, but retain the character of separate words, and some of them are even current in their primary substantival sense. In this Egyptian resembles not only

* In Burman the directive "from" is past, and "towards" is future.

† The hypens denote that *em-* is prefixed and *-er* postfixed to the root.

‡ It is probable that Egyptian had other formatives, or separate words or particles used as such, for no African language that has been well examined is without them, and they are found in Coptic. They characterise all formations that are agglomerative or agglutinative even in a slight degree (e. g. Burman). In Coptic, which appears to be a dialect of Ancient Egyptian rather than identical with it, the prefix *mad-* or *mat-* forms abstract words, *ref-* personative, *jin-* or *skin-* substantival, *am-*, *an-* material adjective, *sa* habitative adjective, *ad-*, *at-* negative, *schu-* intensive, *ram-* gentilic [rhyme "man" Mandingo]. Coptic is more completely a prefixal and prepositional language than Egyptian or Semitic. In this respect it resembles Malagasy. The most remarkable departure from the Egyptian collocation is in that of the pronoun and verb and the definitive and substantive, the pronoun and definitive being preplaced or prefixed in Coptic and postplaced or postfixed in Egyptian. The Egyptian position of the pronoun agrees with the Semitic perfect, with Hottentot, Galla, Bornui, Fulah, and Grebo; Coptic with the Semitic aorist, with Tumali, Hausa, Yoruba, Yebu, Mandingo and Zimbian. Berber partially combines both methods in its verbs as well as in its substantives.

Tibetan but Chinese and other monosyllabic languages. The Burma-Tibetan formative and flexional traits are similar in character to the Egyptian, and differ little from them in extent. In directives and formatives Burma-Tibetan is richer and more flexional than Egyptian. The great advance of the latter is in its pronominal system. The separate masc. and fem. terms and the contracted postfixed forms belong to a stage of linguistic development which none of the purer S. E. Asian language have reached. The absence of this power of incorporating pronominal and substantial terms so as to form verbs is the great ideologic defect of the monosyllabic formation, and it was probably shared by the languages of Africa before the more advanced systems of S. W. Asia spread into it. The generally prepositional character not only of Egyptian but of most of the other Semitico-African languages accords with the conclusion, drawn from facts we have gathered in other provinces, that the Chino-Ultraindian type prevailed widely over the world prior to the Scythic. The Egyptian pronominal system, both in roots and quasi flexions, is Semitic, nor can it even be assumed that it originated in that family, for the Scythico-American languages show that similar systems prevailed in the world at extremely remote periods and in languages hardly less crude than the Burma-Tibetan.

The peculiarities of Egyptian when compared with Hottentot will be mentioned in the next sub-section. By its use of verbs absolute, or of definitives as such, in combination with the pronouns, it expressed the different tenses more discriminatively and distinctly than the Semitic languages, and in this respect it had either advanced beyond them or retained what they lost in their later agglutinative, elliptic and flexional stage. The Semitic use of the 3rd pronoun or definitive as an assertive or verb absolute exhibits the germ of the Egyptian and African more developed verbal systems. In the expression of generic modifications of action in relation to force, cause, will and passion, the Egyptian appears to be less elaborated than the other Africo-Semitic languages. It has, as we have seen, an active and causative prefix, *s*, and probably others also, for Coptic has several preformatives similar to those of other African languages, although less closely combinable with the root than in most. Of the internal flexions of other Africo-Semitic languages

there are few traces, and this appears to be a necessary result of the lower development of phonetic fluency and activity. It is one proof that, notwithstanding some apparent advance in the African line beyond the basis of the Semitic, Egyptian is more crude and nearer to the monosyllabic formations. Another of its comparative defects of a similar kind is that it has no attached directives. The possessive, as we have seen, is a separate particle. It has no objective particle either separate or attached. The Semitic formation has possessive, agentive and objective finals (in Arabic *-i*, *-u*, and *-a*), although these have become obscured in most of its languages. In Ethiopic the objective, *a*, has also become possessive. The same particle is preserved in the Hottentot objective affix of the masculine plural particle. The prepositional tendency of Egyptian must be one cause of the absence of all trace of case flexion. It may be remarked that the pronouns, when postfixed to prepositions, as in Shemo-Hamitic* form *quasi* flexional compounds (e. g. *hna-k*, with-*thee*; *hna-f*, "with-*him*"; *her-a* "with-*me*"; *her-eh* "with-*thee*"). There is much less connection by formatives in an Egyptian, than in a South and Mid-African, or even in an Assyro-Berber, sentence.

The peculiarly crude character of Egyptian when compared with all the surrounding languages,—Assyro-Berber and Upper Nilotic,—must be attributed to some conserving ethnic cause that came into operation at a very remote period. The numeral system—and probably some traits of the pronominal also—are of direct Shemo-Hamitic† or *proto*-Semitic origin, and this fact indicates the ultimate source of the Egyptian civilisation. This civilisation would be adequate to preserve the language in the form it assumed when the dominant Semitic race became incorporated with the native one. But the very crude condition in which the language previously existed appears to indicate that the geographical character of the Lower Nile basin—the marshes within, and the sands

* This like the obsolete Semitic suffixed directives, is a Scythic trait, for the Semitic prepositions, like the Egyptian, were originally nouns, and the postfixed pronouns have the forms in which they are used as the noun postfixes. There are many other points of contact between the Africo-Semitic and the Scythic formations, as will appear in the course of this section.

† Chiefly Himyaritic. For a view of the affinities between the Shemo-Hamitic and other Semitico-African pronominal systems, including Egyptian, see Sub-Section 4, Supplement A.

without—had long insured a large degree of isolation to its tribes.*

3. HOTTENTOT.†

Distinctive characters.—Considerable advancement beyond Egyptian in phonetic power and in harmonic and vocalic tendency, but a great inferiority in this respect to the adjacent Zimbian and also to the Mid-African languages. Greater vocalicism than the Assyro-Berber branch, but with a less agglutinative and flexional tendency. The possession of remarkable linguo-palatal sounds or clicks.

General characters.—Besides the clicks Hottentot has strong gutturals and nasals. It wants the aspirate labials *f*, *v*, but has the sonants *b* and *g* which are wanting in Egyptian. The sibilants are *s*, *ts* and *tsh*. Unlike Zimbian, but like other Semitico-Libyan languages, it affects compound and double vowels. It displays great crudeness of structure, and a tendency to pleonasm. It has some special affinities to the Semitic group and still more to Egyptian, from which it may be inferred—the relative position of these languages being considered—that Egyptian and Hottentot adhere more closely to the oldest African formation than the other classes. In most of its characters Hottentot is so little removed from Egyptian that, in the following comparative remarks on the two languages, all its more salient peculiarities will be found to be incidentally noted.

The affinities of Hottentot to Egyptian consist in common possessions and common deficiencies. While both have fundamental affinities with Semitic, both want the most important and distinctive traits of that formation. Both also want the striking peculiarities of the harmonic South and Mid African languages. They agree in this comparative baldness, and in several well marked characters. All Hottentot substantives have the definitive post-

* The Upper Nilotic languages shew numerous affinities with the modern South-Arabian languages of the Himyaritic class (Mahrah, Gara). Berber has also Himyaritic affinities. It appears probable that a Himyaritic nation early spread from Southern Arabia into the Upper Nile basin and thence influenced the more northerly African tribes. (See Sub-Section 4.)

† Barrows's Travels; Litchenstein's Travels; Appleyard's "Kafir language" p. 4 to 11 (Korana Grammar &c.)

fixed, and it varies with the sex and number as in Egyptian, most of the variations agreeing glossarially with the Egyptian. In Egyptian feminine nouns end in *t*, which is obviously a contracted postfixual form of the separate preplaced feminine definitive *ta*. It is sometimes varied to *s*. The same def. occurs in Semitic, Berber, Emghedesie, Hausa, Galla, Bishari &c. In Hottentot *s* is the singular and *te* the plural form of the fem. postf. In the fem. form of the 1st personal pronoun *ta* is singular and *da* plural.* The common singular masculine postfix is *b*, *p*, *m*, *mp*, although others also occur. All consonantal terminals save *s*, *t*, are masculine singl (kue**b** "man," kues, "woman"; fko**p** "boy," fkos, "girl"). In the plural the masc. postf. is *ku*. In Egyptian the definitive *pa*, *pe*, *pi*, (Coptic *b*), is used with masculine nouns, and it occurs in the form *f* as a postfix to the 3rd personal pronoun. The full Egyptian forms of both the masc. and fem. definitives are preserved in the Hausa prefixes to qualitives, *fa* masc. *ta* fem. The Berber def. *w*, Hebrew *o*, *v*, is evidently the *m*, *f*, *fa*, *pa*, *ba* &c of the Hottentot-Egyptian system.† In Egyptian the substantive root generally appears bare or crude, save in words that are actually feminine. But in Hottentot the monosyllabic root is always clothed with a masculine or feminine postfix, in this respect resembling the more advanced synthetic formations of the Africo-Semitic alliance, Berber, Galla, Semitic &c, and Iranian, in which sex definitives are incorporated with the substantival roots. In some of the Semitic languages and in Galla collective substantives are feminine. No law of this kind has been discovered in Hottentot nor does any fixed rule of gender appear to exist, the same word being treated as masculine in one dialect and feminine in another. "Eye," mup Hot., mump Kor. mus Namaqua; "Tooth," 'kup Hot., kus Nam.; "Fire," eip Hot., eys Nam. The common plural def. is *na* in Hottentot as in Egyptian and Semitico-Libyan generally. In Hottentot it is postfixed to the noun as the regular plural par-

* In the sequel it will appear that the labial was a common definitive of the archaic Semitico-Libyan system, and is still preserved as a conerected postfix in many Semitic and Mid-African words. Some languages and dialects affect it where others take *t*, *s*, *h*; *r*, *l* &c, just as one Hottentot dialect has *-p* where another has *-s*.

† In some dialects, particularly those of the Bushmen, a palatal or click *t* is prefixed to most words. As many of these are found without it in other dialects, it is obviously the definitive prefixed as in some other Libyan languages, e. g. Bishari, Berber in which it occurs both prefixed and postfixed as in Hottentot.

ticle, according to the habit of the Semitic and of numerous African languages. In Hottentot it does not indicate gender. In Egyptian it is a prepositional definitive with nouns, the plural postfix being a different and widely prevalent Semitico-African particle, *u*. But *n* is preserved as the plural postfix in the Egyptian pronouns, as in Semitic, and the *u* of Egyptian &c is probably found in *ku*, the masc. plur. in Hottentot. In Egyptian the bare root of the pronoun is used as a possessive postfix. In Hottentot the root is used for the same purpose, but preplaced. From this it would appear that the pronouns, at least when used with other words, are radically possessive, the agentive form being conferred by the definitives, which are prefixed to them in Egyptian (e. g. 1 *en-ek*=*en-n-ek*, 2 *en-t-ek*, 3 *en-tu-f* masc., *en-tu-s* fem.), and postfixed in Hottentot (1 *ti-re* masc., *ti-ta* fem, *si* poss., 2 *sa-ats* m., *sa-as* f., 3 *quei-mb* m., *quei-s* f. The *re* in *ti-re*, "I," may be a second pronominal root but it is more probably the common Semitico-Libyan liquid definitive (*r l*) which is a masc. postfix of some nouns in Hottentot. Both languages have a dual as in Semitic. In Egyptian this was indicated by the postf. *ti*. (Hebrew *s*, both identical with the fem. def.) In Hottentot the particle is *ha* masc. and *ra* or *kara* fem. Hottentot has a refinement not possessed by Coptic, although it may possibly be discovered in Egyptian. This consists in absolute and relative forms of the plural of the 1st pronoun. *Si-da* relative *sa-da* absolute.* Hottentot seems to have a plural objective particle or flexion, the masc. pl. postf. *ku* sometimes taking the

* The expression of the absolute or "inclusive" form is "*we you*," as in other formations. The Korana proper pronouns appear to be flexions of each other, —*si*, *I*," *sa* "thou." In the singular the *s* of *si* has been changed to the allied sound *t*, but in the plural and in the possessive of the sing (*si*) the root for "*I*" is only distinguished from that for "*thou*" by the vowel. *Sa-da*, the absolute plural, is a combination of *sa*, the second person, and *da*, the plural postfix of the first person. For the fem., *da* changes its vowel to *u*, (*si-da*, "*we*," *sa-du* "*you*"). So in the masc. and fem. plural *si-kye*, "*we*," *sa-kau* "*you*," masc., *si-see* "*we*," *sa-sau* fem. The only other African languages in which the abs. and rel. forms of the plural of the 1st pronoun have been observed are the Vei and Malagasy. The following is a table of the pronominal forms:—

1st Pronoun.

- S. *ti-re* m.; *ti* poss., *r*, *er*, *e*, *infix*.
ti-ta f.; *t*, *inf*.
P. *si-kye* m.; *kye* *inf*.
si-see f.; *sa* *inf*.
si-da c. *excl*.; *da* *inf*.
sa-da c. *incl*.; *da* *inf*.

augmented form *kua* when it is objective. Final *a* is also a Semitic objective particle. No analogous trait exists in Egyptian. The Hottentot qualitative is not affected by the case, gender or number of its substantive. The Egyptian may take the dual and plural postfixes. In both languages the pronouns are postfixed in their radical forms to the word which is rendered assertive, but in all the Hottentot tenses, as in those of most of the other African languages and as in the past and future of Egyptian, the pronoun is combined with an assertive or time particle, while in the Egyptian present, and optionally in the future, as in all the tenses of the Semitic group, the pronoun alone is used. Eg. *iri-a*, "I make," *iri-ek* "thou makest," *iri-ef* "he makes." Hot. *fnau-r-na* "I strike," *fnau-ts-na* "thou strikest," *fnau-b-na* "he strikes"; *kue*, "man," *kue-r-i* "man-I-am," *kue-ts-i* "thou art a man," *kue-b-i* "he is a man." In the Hott. the pronominal postfixes are the same that occur as postfixes in the separate forms of the pronouns, the vowel *i* being added when the root is a substantive, *ha* when it is a qualitative or adverb, and *na* when it is participial or active (the passive taking *ha* like qualitives, e. g. *fnau-na*, "striking," *fnauha*, "struck". *F*, *v*, are used to represent dental clicks). The assertive *ha* (comp. Tibetan *ha* assertive, *sa* agentive, instrumental) is pro-

2nd Pronoun.

- S. *sa-ats m.*; *sa poss.*; *ts inf.*
sa-as f.; *s inf.*
 P. *sa-k-au m.*; *k-au inf.*
sa-s-au f.; *s-au inf.*
sa-d-u c.; *d-u inf.*

The Hottentot pronoun of the 1st person, *si*, *ti*, is found in the plural of Zimbian, *si*, *hi*, *ti*, and some of the Semitic annexed forms, as well as in the Euskarian agentive prefix *t*. The Semitic however are derived from the guttural (*ti*, *ti*, *i*). The separate roots of both formations are different (Zimbian *mi*, &c., Sem. *ne*, *ni*, &c.) In Caucasian the Hottentot root is found as the separate form,—Kabard. *ssi* (Pl. *di*), Absne *sa-ra* (? Hott. *ti-re*), Iron *as*, Lesgi *di*. The Hottentot 2nd pronoun *sa*, *ts* is Semitic (principal form *t*), Euskarian *z*, Caucasian (Lesgi), Indo-European and Scythic. The Zimbian is different (*w* S., *m* P., the oblique Sing. *ku* is Semitic).

The pronominal postfixes are used for the pronouns in the annexed form, 1st *r*, *re*, *e*, *S.*, *kye*, *sa*, *da*, *P.*; 2nd *ts*, *s*, *S.*, *kau*, *sau*, *du*, *P.*

The Hottentot forms present some variations. 1st *S.* *tire*, *tita*, *ša*, *mm*; *poss.* *nng*; *P.* *sisi*, *ji*; *poss.* *sisi-ka*. As *ša* is flexionally connected with *aa* "thou" both may be contractions of roots similar to the Korana, the *si* of which occurs in the plural. The forms *mm*, *poss.* *nng*, are Zimbian. 2nd *S.* *aa*; *poss.* *aa-ka*; *P.* *uu*. The double *a* appears to be referable to the full Korana *saats*. The *u* of the *P.* is the Semitic-Hot. *P.* element found in Korana. 3rd *ha-ha*; *poss.* *haa-ka*. This is the common Semitic 3rd pronoun and radically identical with *sa* of the 2nd person (See remarks on the Semitic pronouns, Sub-section 4). Korana has the same sibilant form in its demonstrative *hee*, "this." The *poss.* *ka*, used with all the Hottentot pronouns, is Zimbian and Galla,

bably identical with the wide spread postfix *a*, which is participial in Euskarian and generically assertive or verbal in Zimbian (Mpongwe, Suaheli, Kafir, &c.) In Coptic it perhaps occurs in the active prefix *a* which may be a contraction of the primary full form of the Egyptian (*sa*). Its original office was probably merely definitive, and if so it is preserved in one of the Semitico-African definitives. *Na* is probably identical with one of the Egyptian verbs absolute, *un*, *unu* which is often so placed as to be considered simply as a participle (Bunsen, 293). In Egyptian the past tense is indicated by *en* placed between the root and the pron. postf. In the future the tenses are marked by particles or auxiliaries, to which the pronoun is postfixed. In the past the auxiliary is postfixed to the verb, but in the future it precedes it. The Hottentot suffixes its auxiliaries to the pronoun. The passive adds *e* to the root. It perhaps corresponds with the Egyptian *i* of the past-participle. The pronoun may be postfixed objectively to the verb in Hottentot, the agentive being postfixed to the tense particle or auxiliary e. g. *tir-na fnau-zi* "I-do strike-you." The agentive with its auxiliary may also be postplaced and agglutinated, *fnauzirna*. Although such forms are common in the Africo-Semitic languages and occur in the adjacent Berber, the Egyptian does not appear to have attained this degree of incorporation, but the pronominal postf. may apparently be taken agentively or objectively as the sense requires. Like all the Africo-Semitic languages Hottentot has reflective, (*sin*), reciprocal, (*ku*), permissive (*kosi*), and potential particles, which are postfixed to the root.

In their general character, and the kind and degree of their development, the two languages so strikingly agree, that—the relative positions and histories of the Egyptians and Hottentots being considered—we are justified in believing that we find in them the type of the oldest African formation extant. Many identical traits, including the sex flexions, connect this type with the Semitic, and it is remarkable that they are not found in the great harmonic family of South Africa, by the pressure of which Hottentot appears to have been driven to the extremity of the continent. The postfixal position and agglutinated form of the definitives and persons in Hottentot is an important trait. In Egyptian the

definitives are preplaced, in this manifesting the prepositional tendency which is more decided in the Coptic. But in Egyptian there are remnants of postfixual agglutinated forms in the postfix of feminine nouns (prefixual in Coptic) and of the dual and plural, and especially in the pronouns, which in so many languages preserve vestiges of archaic structure. The pronouns have a generic prefixed definitive *en*, but all the other elements are postfixed. The pronouns are also postfixed agentively and objectively, in their curt forms, to the verb, although in Coptic they are preplaced agentively. In Egyptian, as in Coptic, the agentive or subject regularly precedes the predicate. Other prepositional languages exhibit a similar tendency to postplace the pronouns in a contracted form to a word used actively, and I think there can be no doubt the true explanation is that the action or being was originally referred possessively to the pronoun. It is difficult to conceive how it could have been otherwise in the cruder stage of language. Egyptian and Coptic have formed composite preplaced possessive pronouns, but Egyptian uses the root postfixually (boa "soul-my," *sik*, "son-*thy*," *sif* "son-*his*") and traces of it exist in Coptic. In the allied Semitic, as in Hottentot, the archaic usage is fully preserved. The variable position of the assertive or time particles,—as of definitives—with relation to the root, is common to Hottentot and Egyptian with other languages of the Semitico-African and similar formations. A similar freedom is exhibited in the position of the pronoun with respect to other servile words. Thus in Egyptian the optative precedes the root, the pronominal postfix adhering to the latter, but in Coptic the pronoun (which is prepositional in that dialect) is postfixed to the servile. The Hottentot subjunctive has a similar collocation. Copt., 1 *mari* rime, 2 *marek* rime &c, Hot., 1 *ari* fnau, 2 *aats* fnau &c. The relation of the Hottentot to the Egyptian and other Semitico-African languages will be more fully examined in the separate chapter on this alliance.* The ethnic inferences I have drawn from the two languages required this brief notice of their special

* The affinities of the Hottentot roots are chiefly Nilotic,—Agau, Gonga, Shangalla, Dalla, Galla family, Nubian family, Bishari, Egyptian—that is they are Libyan. Some archaic Nilotic roots preserved in Hottentot dialects appear to be lost in the Nile province, while they are extant in some of the remote Nigerian languages. Hottentot has also peculiar affinities with remote Asiatic vocabularies.

affinities, for they have not, so far as I am aware, been hitherto remarked nor the ethnic position of Hottentot indicated.

Hottentot has been considerably influenced by the long continued presence of Zimbian in its gradually contracting province, and, on the other hand, it has influenced some of the South Zimbian languages.

4. SHEMA-HAMITIC OR ASSYRO-BERBER.*

Distinctive characters.—Consonantal, non-harmonic, non-agglomerative, but archaically agglutinative, and, in consequence elliptic, metamorphic and flexional. Roots generally triconsonantal, and subject to formative modifications not only by prefixes and post-fixes, but by mutation in the vowels, reduplication of the consonants, and inversion. (The tendencies in which these flexional traits have originated are common to all the African groups, and instances of similar or analogous traits are found not only in the Berber but in many of the other known African languages.) †

* Gesenius, "*Hebrew Grammar*" by Rodiger (Davies's translation, 1846); Moses Stuart, "*A Grammar of the Hebrew language*" (ed. of 1838); Rosenmüller, "*Institutiones ad fundamenta Linguae Arabicæ*" (1838); John Richardson, "*A Grammar of the Arabic language*" (1776); A Sprenger, "*Observations on the Physiology of the Arabic language*," (*Journal of the Asiatic Society Bengal* 1850 p. 115); H. C. Rawlinson, "*On the Inscriptions of Assyria and Babylonia*," (*Journal of the Royal Asiatic Society* xii, 410 &c.); E. Hincks, "*Remarks on Assyrian* (Rep. Brit. Ass. 1852 p. 85). F. W. Newmann, "*On the Structure of the Berber language*" (Appendix ii to vol. iv. of Prichard's *Researches into the Physical History of Mankind*); Ib. Interlinear translation of the Narrative of Sidi Ibrahim &c. with Notes, (*Journal of the R. Asiatic Soc.* 1848, vol. ix, 215, 262); V. de Paradis, "*Grammaire et Dictionnaire Abregé de la Langue Berbère*" by P. Amédée Jaubert, 1844; F. W. Newmann, Notes on the Galla verb and pronouns (Proceedings of the Philological Soc. iii, 125, Nov. 1847); F. W. Newmann, "*Remarks on the Hausa Language*," (Appendix iii to vol. iv of Prichard's *Researches into the Physical History of Mankind*); R. Garnett, "*On the nature and analysis of the verb*" (Proceedings of the Philological Soc. iii, 183, March 1848). W. Turner "*On the Discoveries of Himyaritic Inscriptions in Southern Arabia &c.*" (Trans. Am. Ethn. Soc. i, 421). J. G. Hutton, *Vocabulary of the Curia Muria language, a Gara dialect* (Trans. Bomb. Geog. Soc. iii 183). H. J. Carter *Vocabulary of the Mahrah Dialect with valuable notes by Mr Bird*, (Journ. Bomb. R. As. Soc. ii, 347). M. S. S. *Vocabularies of Mahrah and Gara obtained from an Arab of Zafar*, (J. R. L.).

† NOTE ON THE RANGE OF THE SHEMA-HAMITIC FORMATION.

I use the terms Shemo-Hamitic and Assyro-Berber to include with the proper Shemo-Hamitic languages of Asia, those African ones which have been so much assimilated to Shemo-Hamitic as to possess the distinctive characters of that formation, e.g. the ancient dialects of the Berber province of north Africa from Siwah to the Canary Islands and from the Mediterranean to the Sahara,—the Amharic, Gafat and Hurrur of Abyssinia and those which, although of Shemo-Hamitic origin, have been modified by African tongues (e.g. Tigre, the representative of the Gheez or Ethiopic.)

"The Shemitish class of languages consists of three principal divisions. a) The Arabic, which has its seat in the south of the territory of the Shemites. To this belongs the *Ethiopic* as a branch of the southern Arabic (Himyaritic). b) The

General characters—The distinctive primary character of the As, syro Berber formation consists in the agglutinative, curt and elliptic phonology. Its glossarial rhythm is fundamentally dissyllabic and trochaic like the Scythic, (Hebrew, however, being iambic,) and it has a greater indisposition than Scythic to words that exceed

Aramean in the north and north east. It is called Syriac, in the form in which it appears in the Christian Aramean literature, but *Chaldee*, as it exists in the Aramean writings of Jews. To these writings belong some later portions of the Old Testament, viz Ezra, iv. 8; vi. 18, and vii. 12-26; Dan. ii. 4, vii. 28. To the Chaldee is closely allied the Samaritan, both exhibiting a frequent intermixture of Hebrew forms. The Aramean of the Nestorians (John's disciples, Sabii), is a very degenerate dialect, but the vernacular Syriac of the present day is still more corrupt. c) The *Hebrew*, with which the Canaanitish and Phœnician [Punic] stands in close connection." "The above languages.....are now either wholly extinct, as the Phœnician, or they exist only in a degenerate form, as the Aramean among the Syrian Christians in Mesopotamia and Kurdistan, the Ethiopic in the newer Abyssinian dialects [Tigre, Amharic], and also the Hebrew among a portion of the Jews (although these in their writings especially study the reproduction of the Old Testament language). The Arabic is the only one that has not only kept to this day its original abode, Arabia proper, but also spread itself on all sides into the districts of other tongues." Gesenius, (Introduction to Hebrew Grammar).

To the proper Arabic, Aramean and Hebrew divisions of the Semitic or rather Shemo-Hamitic (Hebrew being Hamitic) formation, should be added, d) the Babylonian or Assyrian; e) the Himyaritic with its living dialects, the Gara or Ekhili and Mahrah; f) the cognate and probably derivative Ethiopic, with the modern mixed or partially African dialects of Abyssinia, -Amharic &c.; g) Berber. The other Semitic-Lybian languages, although containing Shemo-Hamitic ingredients, are mainly referable to an earlier and preflexional condition of that formation.

The earliest Hebrew ethnography (Genesis ch.x.) indicates that the Semitic region was jointly occupied by Shemites and Hamites. Four branches of the Hamites are enumerated. The first were the Cushites, embracing various tribes of Southern Arabia, (those of Sheba, Haviilah, Raamah &c.), the Ethiopians and the Euphratan tribes or Nimrodians (Babel, Nineveh, Calneh, Calah &c.) The Asiatic stock of the African Cushites or Ethiopians were clearly an offshoot from the S. Arabian branch, as is proved by their languages. Of the tongues spoken by the Cushites, the Babylonian or Assyrian—now in course of recovery—is the representative of the eastern or Euphratan branch; while the Mahrah, the Gara or Ekhili (1), the Himyaritic and the Ethiopic are dialects of the western or Arabian (better Erythrean, to distinguish this group, occupying both sides of the Red Sea, from the Arabic dialects). The 2nd branch of the Hamites was that of Misr or Misraim (pl.), which included the Egyptian and some of the adjacent Asiatic tribes. The 3rd branch was that of Phut, of whose ramifications, if any, no notice is taken. The 4th branch was that of Canaan, embracing various tribes of Palestine (Phœnician &c.) Michaelis concludes that their original seat was on the borders of the Red Sea, and if so it is probable that they were at one time counterminous with the South Arabian Cushites, and that the special Hebrew affinities of the Himyaritico-Ethiopic or Erythrean languages are mainly to be thus explained (2). Hebrew represents the Canaanitish language, but several dialects may have existed before the destruction or rather final absorption of the Hamite aborigines by the Hebrews. Of the Shemites five branches are enumerated, those of Elam, Asshur, Arphaxad, Lud and Aram. Both the Hebrews and Arabs are described as belonging to the branch of Arphaxad and the family of Eber, the former being descended from Peleg and the latter from Joktan, sons of Eber. The Joktanite tribes enumerated are Arabian. They are described as dwelling from Mesha to Sephar a mount of the east, probably the modern Zaphar, occupied by Gara. The modern Arabs claim to be descended from Abraham, a Pelegite, the location of whose tribe was in Mesopotamia, before he migrated to Canaan, but it is more probable they are Joktanites.

or fall short of two feet. Hence it avoids compounds of substantial roots, (save in forming proper names,) a trait that, in its consequences, greatly distinguishes both the phonology and glossary from those of agglomerative formations, like the Indo-European, Dravirian, Zimbrian and Malagasy. To the same cause we

The Hamites and the Shemites appear to have had a similar range in the Semitic province and to have been much intermixed. Several tribes or places are mentioned both as Shemite and Hamite. The narrative of the wanderings of Abraham and Lot in the land of the Canaanites, shows how the two branches were intermixed without losing their individuality and independence. In Canaan the Hamites were the older civilised race, dwelling in towns, and famous for their manufactures, navigation and colonies. The Shemites were an intrusive shepherd or nomadic tribe, and their original inferiority to the Hamites is attested by their loss of the Aramean language—which they must have brought with them from Ur of the Chaldees—and their adoption of the Canaanite or Phœnician. In the Euphrates basin the great cities of Babylon, Nineveh, Calnah &c. were also Cushite. It is probable therefore that in Southern Arabia also the Cushites were the older race, and akin in the character of their civilisation to the Babylonian and Phœnician. The Joktanites were probably at first intrusive nomadic tribes like the Hebrews in Canaan. The general conclusion is that the oldest civilised race of the Semitic province were Hamites, that the Aramean, Hebrew and Arabic Shemites were nomadic tribes, and that it was during the era of Hamitic civilisation and domination on the southern and western sea board of this province, when they possessed Babylon, Aden, Tyre, Sidon, &c., that Hamites formed colonies in Africa (Ethiopia, Egypt, Barbary) and modified the older African races and languages. In later Hebrew documents the term Cush is sometimes limited to the dark skinned Ethiopians, but in the ethnographic chart of Xth Genesis there is nothing to shew that the Hamites of Babylonia, Arabia and Canaan differed physically from the Shemites. They are described as the descendants of two brothers immemorably occupying the same S.W. Asiatic province. The mere fact of the Cushites having earlier acquired a high civic and maritime civilisation could not have induced any essential physical peculiarities. The Babylonian sculptures render it clear that the Euphratan Hamites were physically Semitic or Semitico-Iranian.

It appears from the above that the most ancient Hebrew ethnography gives no warrant for applying the term Hamitic to distinguish the negro races from the Semitic. It only proves that of the two branches of the same race, the Hamites were the most civilised and enterprising and the first to become dominant in Northern Africa. The pure Africans have no place in this ethnography, which, so far as it goes, appears to be entirely in accordance with the conclusions drawn in the text from modern linguistic researches (3). The joint occupation of the S. W. Asian lands, from the Red Sea to the Indus, by fixed civic nations and nomadic tribes of herdsmen, sometimes of the same and sometimes of different races, is a standing ethnic phenomenon.

(1). The Gara, Hakli or Ekhili appears to be a purer or more archaic dialect than Mahrah. Dr Carter's description of the peculiarities of the Gara phonology agrees with M. Fresnel's. "Their language is the Bedwin dialect of the South East Coast of Arabia; being, like that spoken by the inhabitants of the Island of Socotra and by those also of the islands in the Bay of Curia Maria, intensely guttural; and in some of their songs the modulation of the sounds is almost entirely confined to the throat. They do not understand the Arabic spoken in towns unless they have had much intercourse with the Arabs who themselves on this coast appear to prefer conversing in the dialect of the Beduwins", (Jour. Bomb. As. Soc. ii. 198). "The Mahrah dialect" Dr Carter says, "as spoken by the Mahrahs themselves, is the softest and sweetest language I have ever heard" (Ib. p. 362). The Southern Arabians say that the Gara has a much less proportion of modern Arabic than the Mahrah (Mr Bird. Ib. 366). The Gara or Ekhili is spoken at Marbat and Zafar and throughout the district of Shajr. The Mahrahs to the westward in the maritime part of Hadramaut are "descended as would appear from the more ancient and original? tribes of Garas. Both declare they are descended from the Hamyari race. Two other large tribes of this part of Arabia are called Afar, Ophir? and

must attribute its disposition to incorporate monosyllabic relational roots or particles with substantial roots and to avoid long combinations of such formatives. The phonetic changes that attend its agglutinations are reduplication of consonants; augment and composition of vowels; and ellipsis, assimilation, commutation, addition and transposition of vowels and consonants, with change or shifting of accent or quantity. The principal consonantal flexion is simple reduplication. The principal vocalic flexions are of long into short vowels of the same class and *vice versa*, e. g. a, ä; e, ë, ĩ; o, ö, ũ. So a, e; e, ĩ, i &c, changes which arise from e being radically äi, as is seen in the Semitic, Libyan and Zimbrian, even more clearly than in the Indo-European, phonologies. In like manner o is as clearly proved by historical changes to be only a shorter form of äu. Hence o may become ä, a, or u, and ä, a, or u may become o, but a does not become u. Elision of vowels and changes in accent or quantity are also common incidents of Assyro-Berber agglutination. The agglutinative flexions have acquired an ideologic or glossarial force in many cases,—as necessarily happens in the slow progressive transformations of all agglutinative languages, and in proportion to the degree of their agglutinative and concretionary tendencies. Thus they subserve the indication of person, sex, number, degree and mode or genus, in various instances. The triconsonantal character which most roots now have, appears to be attributable to the archaic habit of annexing a consonantal definitive to monosyllabic roots, as in Hottentot and other Libyan languages. This habit, with the dissyllabic, elliptic and consonantal character

Alkathiri. According to an Arab of Duffar (Zaffar) from whom I obtained vocabularies of the Mahrah and Ekhili (or Häkili, as he pronounced it) the former is spoken along the S. coast of Arabia from Sehut to Damgut, and extends far inland amongst the mountains, and the latter by the Häkili (Gara of the Arabs) and Barama tribes, whose coast line is from Damgut to Nus. The language of the Curia Muria islanders is almost identical with the *Shehri* of the tribe around Morbaat, which is a dialect of the Mahrah. The language of Socotra appears to resemble it. (*Hulton*, Trans. Bombay Geo. Soc. vol. iii, p. 119.)

(2). Prichard's Researches iv, 573 &c

(3) See Prichard's Researches ii, 248, 371 (Note viii); iv, 547 to 601. Prichard's conclusion from the data and arguments of Bochart, Michaelis &c. is that the Cushites were genuine Ethiopians who in remote times had possessions in Asia (S. Arabia Babylonia), and that after they were restricted to Africa, the name continued to be given to Semitic tribes who succeeded them. The view I have taken appears to be more in accordance with the Hebrew genealogy and with the evidence of language. In a comparatively late era (A. D. 527) the Abyssinian Cushites invaded their parent country, Southern Arabia, and conquered the kingdom of the Himyarites.

of the phonology, has induced a strong predilection for triconsonantal roots or stems, to which the consequential flexion system has given predominance and stability. Like other formations Assyro-Berber confers its own rhythmical and flexional character on words derived from foreign sources. Thus letters are added or elided to give the proper Semitic shape and capacity of flexion. The same process must have largely modified the original forms of native roots and compounds of two monosyllabic roots.

The most notable character of the elementary Semitic phonology is its variety of guttural sounds, some being strong and peculiar.

In other respects the Assyro-Berber languages retain the same substratum as the Egyptian and Hottentot. In some directions they are more crude, in others much more advanced. The assertive absolute or verb substantive, and consequently the tenses, are less developed, assertion and time being thrown on the pronoun, the position and form of which vary with the tense, (save in Babylonian), and cause some flexions in the root. But both in substantives and pronouns the object is more distinctly indicated than in Egyptian and Hottentot. Substantives have an objective terminal (although its significance is now lost in some of the languages,) and the pronoun is attached to the verb in distinct agentive and objective forms. In Berber a third or dative form may enter the combination, as in Euskarian, and both agentive and objective may be prefixed or postfixed. The Assyro-Berber root is thus inflected to a remarkable extent, the modifying particles, which, in the other Semitico-African languages, are shared between it and auxiliary assertives or verbs absolute—and, are in general, merely prefixed or suffixed,—being all thrown upon it, and most of them more or less incorporated.

The pronominal roots are compounded with definitives,—simple or absolute, feminine, masculine, singular, dual, plural—and, from the great disorganization of the primary system, much flexion and irregularity have been produced. The 1st pronoun appears to have had a primary root *ni, na* &c., and a secondary one *k, h, t*, which may have been originally a masculine definitive postfix. The primary root of the 2nd pronoun is the definitive *ta, te* &c with its consonantal variations to *th, sh, s, z* and *k*. The 3rd pronoun contained the same root as the 2nd,—*t, s, h*. The *t* and *s*

forms of the definitive have acquired a secondary sexual function (feminine), and various other ideologic changes have taken place.

The same roots, and analogous combinations, changes of form and secondary or acquired functions, are found in other pronominal systems. Pleonastic, agglutinative and flexional formations, like Indo-European and American, present exact parallels in combination, as well as in development of secondary powers. The Scythic, Georgian, Indo-European and Zimbrian root of the 1st person in *m*, *b* is not Semitic. The 2nd and 3rd in *t*, *d*, *s*, *n*, *h*, &c are,—the prevalent Indo-European form, *t*, *d*, agreeing with Semitic rather than Scythic, in which *n* is most prevalent.

The *n* of the 1st person connects the Assyro-Libyan formation with Dravirian, (*ne*, *en*, *an*, *na*, *nan* &c). The Iron postfixed *n*, *in*, *on* is the same root, and it is probably connected with *d*, *s* of the other Caucasian languages. The Euskarian pronominal system is closely connected with the archaic Semitic. In the 1st person *n* is used in the objective,—the guttural and dental root being also current as in Semitic. The Yeniseian and Korean (*na nei*) connects this system with the American formations, in which, *n*, *d* &c is very prevalent, and appears to have preceded the labial Scythic pronoun of Esquimaux &c. The oldest system in which *n* is the 1st person is the Chinese (also Tibetan &c), to which Dravirian adheres in the 2nd person also.

Of the second Semitic element of the 1st person, *k*, *h*, *t*, the guttural and aspirate form has the most numerous foreign affinities, through Galla and Malagasy, with the Asonesian languages. It is also Euskarian and Indo-European.* In the latter system also its pronominal function appears to be secondary, and its primary one merely definitive. If so, it is not probable that there is any historical connection between the Semitic and the Indo-European forms, save through the common archaic definitive from which they have arisen. The Semitic *t* of the 1st person is merely a variation of *k*, and cannot therefore connect the system with those which have *d*. The latter are only connected with Semitic through the *n* root. The Euskarian agentive *t* appears to be

* In the Median Scythic, *hu* (in the plural guttural, *ni-hu*) is the agentive 1st pronoun, and *mi* the possessive, as in Indo-European. But as *hu* occurs in Babylonian and *ku* in Ethiopic, the Median *hu* is probably of Semitic derivation.

Semitic (Hebrew, *-ti*, agentive affix), the objective being *n*, as in Semitic.

The 2nd pronoun in *t*, *k*, *s*, *z*, is Indo-European, Scythico-American (Mongol, Fin, Yukahiri, Kamschatkan, Korean, Algonkin, Sioux, Mexican, &c), Caucasian (*di*, *si*, *s*, *is*, *et*, *at*) &c.

K occurs with its Semitic masc. function in Euskarian. The sibilant *zu*, *z* (Galla, Hottentot) is honorific. The fem. *n* is probably related to the Semitic plural f. forms in *n*, but it may be Caucasian (*ni* com.)

In one of the Dravirian languages, Gond, *k* occurs as a postfix both in the 1st and 2nd persons *nak*, *nik*, (comp. Bab. *a-nak*, Eg. *a-nek* 1st p.), and it is still partially preserved as a postf. to nouns, generally plural, as in Scythic, Dravirian and Hottentot. The 1st person plural abs. of Kol, *abu*, (in which *b* appears to represent the 2nd person) is identical with the Mah-rah pl. of the 1st person, *abu*.

K does not occur as a postfix in the Indo-European pronominal system (unless under the form *t* in the Albanian *ta-t* "thou"), but it is found in some of the archaic Scythico-American languages. In the N. E. Asian languages it is a common definitive postfix of nouns also, and to some ancient formation of S. W. Asia, of which these are derivatives, we may with probability trace its presence in the Semitico-Berber pronouns. Compare with them the 1st person in Ostiak, *ma-ty-ot*; Yukahiri, *ma-t-ak* S., *mi-t-ek* P. (the vowel flexion being Semitic also); Kamsch. S. *go-ma*, *gumu* &c; Japan *wa-ga*; Eskimaux *wa-nga*; Aino *tu-gai*; Korian *ko-gu*; and the 2nd pronoun of Yukahiri *ta-t* (Albanian *ta-t*); Kamsch. *gy-tche*, *ky-se*. In Mexican the 1st and 2nd pronouns are both Semitic (1st *ne*, 2nd *te*), and Otomi preserves the guttural def. in both.

The Semitic system—like the Draviro-Australian—is connected with the first great diffusive harmonic formation of Asia, the true pronominal roots of Draviro-Australian being still Chinese, while the 2nd pronoun in Semitic, as in Indo-European, has the Scythico-American dental form,—Scythic preserving the nasal also, as in Chinese, Draviro-Australian and some American languages.

The Assyro-Berber 3rd pronouns, with the definitives, demons-

tratives and verbs absolute, in *s*, *h*, *t*, *a*, *n* are almost universal.* (See Supplement A. PRONOUNS).

The formatives are annexed particles. In Aramæan they are chiefly confined to this. In Hebrew, Arabic and Berber, vocalic mutation and consonantal reduplication in the root itself are also used either alone or in combination with formatives. The various forms are entirely African in their ideologic character. (See Supplement B. FORMATIVES).

The verbal compound is more agglutinated than the Indo-Germanic, and rather resembles some of the Caucasian, Euskarian and American combinations. In degree of agglutination and extent of composition it is intermediate between the Caucasian common verb and the Euskarian verb absolute, while it has more phonetic flexion than either. The flexion is similar to what occurs in these and in African formations. But in all others it is only partially used. In their present forms it is a power of secondary importance. In Semitic it takes rank as the leading and almost universal ideologic process. All the formations that had the same agglutinative and elliptic phonetic structure, have combined with it an agglomerative and expansive one, and the latter has, in most, predominated over the former. This is conspicuously the case in Indo-European, Zimbian, Malagasy and Euskarian. In Caucasian and some African and American languages it is less marked. The majority of the American languages exhibit both powers acting co-ordinately. But the flexional tendency is much inferior to that of Semitic. In the Scythic formation the agglutino-elliptic

* It is interesting however to remark, in connection with the fact of Semitic, Dravirian and Caucaso-American pronouns existing in their most crude condition in the monosyllabic province, that some of the Tibeto-Burman combinations are very similar to the Semitico-Libyan. *Su*, the 3rd person in Babylonian, Hausa &c., is the relative in Tibet, Newar, Gurung and Tibberkad: With slight phonetic changes it occurs in several other languages of the same province, in Chinese *su*, *so*, &c. The Semitico-Libyan *isan*, *sen* &c. have their representatives in the Uraon 3rd person *asan*, the Tibberkad relative *suni*, the Magar demonstratives *is ena* "this", *asena* "that"; the Dhimal relative *sine*. The Semitic *ha* of the 3rd person is found in Magar, Lepcha, and Milchanang. Its combinations with other definitives have also representatives. Comp. *hada* "this", *hadak* "that", Arabic, *haga* "this", Bab., Afghan; *hade* "this", Tib.; *heti* "who", Dhim.; *hatto* "who", Milch.; *hudak* "that", Uraon, *hono* "that", Kol.; *humi* "who", Arab.; *humi* "that", Malagasy; *hum* "what", Milch.; *huma* "that", Burm.

The Semitico-African recurrence of the same definitive in 2 or even 3 of the pronouns is found in Indo-European, Dravirian, Caucasian (e. g. Awari, 1st *d-i-z*, 2nd *d-u-z*, 3rd *d-o-s*), and Scythico-American.

tendency has been displaced at a more archaic stage by the agglomerative and harmonic.

The formation at one time had postfixed directives. Arabic preserved an agentive or nominative *-u*, an objective *-a* (Hottentot), and a possessive *-i* (Scythic); but in the modern language the objective alone is occasionally used. In Ethiopic the same particle has a greater persistency. The Hebrew preserves these terminals, but they have mostly lost their significance. The original full form of the poss. is preserved in the Berber poss. forms of the pronouns as a prefix, *in* (Scythic *n*). In the contracted form *n* it is pref. in Egyptian, Hausa, Bornui and in the 1st pronoun of Malagasy. Egyptian and Malagasy have *an* and Egyptian *en*.

In lieu of the ancient postfixes, the formation, like the Indo-European, now uses prepositions. The possessive is denoted by a phonetic connection of the two words. The object of possession—which precedes the possessive—is subordinated by its accent advancing to the possessive, and by the root itself commonly suffering contraction through vocalic or consonantal change. The two words are thus compounded.

The separate pronouns have no cases. The annexed forms are merely fragments of the roots, varying with the case. The verb postfix (objective) and the noun postfix (possessive) are generally similar, but sometimes different, in form. The dative and ablative prepositions are prefixed to the pronominal suffixes to form separate pronouns in these cases. The feminine, dual* and plural postfixes cause flexional changes in the root.

There are only two genders, masculine and feminine. These are partly distinguished by changes in the vowels of postfixed definitives themselves. The vocalic flexion appears to be the more archaic of the two modes, the feminine, as in Indo-European, taking a longer, broader or more liquid sound than the masc.

* Egyptian has dual forms for nouns and qualitatives (*ti*). The Hebrew and Hottentot only use the dual with substantives. "The use of the dual [*s*] is in Hebrew confined, except in the numerals 2, 12, 200 &c., chiefly to such objects as are by nature or art in pairs." "It cannot be doubted that Hebrew at an earlier period made a more extensive and free use of the dual".... "The ancient Arabic forms the dual [*n*, a plural element] in the noun, pronoun and verb almost co-extensively with the Sanskrit or the Greek. The Syriac has it only in a couple of words, but yet without living force, somewhat like the Roman forms *ambo*, *duo*. In like manner the dual is lost in the new Indian tongues" Gesenius § 866.

Thus *i* is frequently fem. where *a*, *o*, is masc. Where *i* occurs in the masc. it sometimes becomes *ī* in the fem. In like manner *a* becomes *ā*. *At*, *ath*, *t*, *th*, is a definitive postfix corresponding with the Arabic fem. demonstrative *ta*. It appears to have been originally a common def., its sexual function being a secondary or acquired one. Nouns in themselves neuter more often retain this postfix than become masc. in form. In the proper Semitic languages the masc. is indicated by the absence of the postf. But the pronominal system retains *h* as a masc. definitive in some instances (as in Euskarian), and, reversing the noun system, frequently marks the fem. by the absence of the def. In some cases *h* and *t* are clearly used as masc. and fem. definitives. Thus in Galla the 1st demonstrative is *ku-ni* masc., *tu-ni* fem. Danakil has *uss-uh*, "he"; *issa*, "she"; *uss-un*, "they."* In Hottentot *h* is masc. pl.

The plural postfix is *na*, *n* &c. (Semitic, Egyptian, Berber, Tumali, Hausa, Danakil, Hottentot). In Galla it becomes *d* (*ada*) which is a Hottentot form also (1st and 2nd pron.) In the Galla pronoun system—as in Egyptian and Hottentot—*n* is common, or without gender, as *ta* of the singular originally was. In the Semitic nouns it is appropriated to the masc., the fem. plural being a vocalic flexion of the singular. In the pronominal system *m* is masc. and *n* fem. The noun forms of the plural postfix are *un*, *in* Ar., *an* Eth., *in*

* The distinction of sex is replaced by that of animate and inanimate in the Zimbrian formation. This forms one of the chief archaic points of difference between the two formations. The Semitic system embraces Egyptian, Coptic, Berber, Hausa, the Galla family, Bisharye and Hottentot, and the same terminals are found nearly throughout. They also occur, without indicating sex, as definitive prefixes or postfixes in Zimbrian and nearly all other African languages. The Semitic *n* takes the labial form *m* in Hebrew, and the labial becomes *f* in Egyptian, *w* in Berber, and *p*, *b* in Egyptian (Coptic), Bisharye and Hottentot, which has also *m*. Hausa preserves the nasal as a prefix (*na*). It seems probable that both *n* and *p*, *b*, &c. were primitive forms, and if so the Semitic *n* is not connected through its Hebrew variation *m* with the African labials. *T*, *s* is feminine throughout, and it is perhaps found also in the Kosah *-ust*. Many African languages use both prefixes and postfixes. The position of the Arabic *al* and of the definitive prefixes of the pronouns places the ancient Semitic system in the same class. In Berber *t* is both prefixed and suffixed, sometimes to the same root. In some cases *n* is combined with *t* in the postfix. Some of the African pronominal systems, which do not now indicate sex, preserve remains of the Semitic sexual definitives. This is the case with Malagasy and certain of the Mid African languages. From the general evidence of the African languages of all classes, no doubt can be entertained that in the pre-agglutinate condition of Semitic, its roots were monosyllabic, and that in the generally dissyllabic form which its glossaries now possess the roots are concreted with definitives. In Africa, the agglutination and concretion have not been carried so far, so that it is less difficult to detach the external definitive prefixes and postfixes from the root, and to ascertain their internal euphonic action on it.

Aram., *im* Heb. As in Indo-European, the plural, like the fem., is sometimes indicated by broader vowels (ā, u &c). This is well illustrated by the Galla ana, "I"; unu, "we"; and the Hausa ka, "thou"; ku, "you"; sa, "he"; su, "they." The fem. *i* is also plural in some African languages.* The Semitic and African pl. *e* is probably formed from it, either directly or through *ai*. *I* is pl. in Zimbian and some Mid African tongues. The labial appears to have been an archaic masc. definitive of the system, as it is found in Egyptian and Hottentot. In Gara and Mahrah it occurs as a plural def. in the pronoun, and it has a plural function in many African languages,—Berber, Yebu, Zimbian &c.†

There are very few primitive nouns, but an abundance of derivative ones,—the regular participles and infinitives and other participial forms of verbs being used as nouns, and denominatives being also formed by locative and other formatives.

The collocation is generally direct and the action formatives are prefixed. The sentence derives its consistency from the character of the verb, the reflexion of the gender and number of the subject in the attributives both qualitative and assertive, and of the person in the latter. In other respects the roots and the structure are simple and even crude, as in the African languages. The great mass of the roots are active and there are very few qualitatives.

The Semitic formation has passed through several gradations. In its most archaic condition—subsequent to the purely monosyllabic—it appears to have been similar to the Egypto-Hottentot, which is probably the oldest of the existing African formations. In this stage it had a leaning to Scythic of the crudest type, in its dissyllabic form, in the postfixal position of its annexed pronouns and of its directives, in the union of definitives with substantial roots prefixually or postfixually, chiefly the latter, and sometimes both. The plural vowels were Scythic, and the sexual ones appear to have been also found in an early stage of Scythic. The possessive was Scythic, and the pronouns had some affinities. The archaic African formations appear to have been an extension of an archaic S. W. Asian

* The phonetic power of the Semitic formation is strongly marked in its best developed or best preserved member, the Arabic, and this is strikingly exemplified in the numerous plurals that are now merely phonetic flexions of the root of the singular. Similar flexional plurals are found in Hausa and Fulah, and, to a less extent, in Susu, Tumali, Galla, Berber and Coptic. In other African languages the definitive of the singular is phonetically inflected in the plural.

† Berber,—“ear” *amzugh* S., *imzughan* Pl., “hand” *efus* S., *ifasen* Pl.

one that was afterwards changed into Semitic. The latter presents a very marked development in which Egypto-Hottentot has not shared. It appears to be the crude and archaic Semitico-Hottentot of S. W. Asia and Africa, modified by the influence of an elliptic and agglutinative Caucasian formation, which prefixed, or prefixed as well as postfixed, its pronouns to verbs. In its tendency to ellipsis and flexion it agrees with the cruder Caucasian phonologies more than with those formations in which agglomeration prevails (proto-Scythic, American, Euskarian, Georgian, Indo-European, Zimbian, Dravirian, Australian). The connection between the S. W. Asian formations and the African must have continued, to some extent, throughout the long interval that probably elapsed between the epoch when crude proto-Semitic spread into Africa; and that in which Semitic was metamorphosed into the agglutinative formation of which its historical condition is the decayed flexional result. In that period the proto-Semitic languages of S. W. Asia probably departed more or less from the crude Egyptian type, and the higher development of most of the other African languages that retain a proto-Semitic character, such as Galla and Hottentot, may be partially due to the influence of later phases of proto-Semitic, although they owe much to the direct action of the Zimbian formation. In a comparatively modern era Semitic resumed its way in Mid-Africa. These ethnic questions will be more fully adverted to in the conclusion of this section.

The Mid-African languages are, to a considerable extent, Semitico-Libyan, but as they also partake largely of a distinct development, which is found purest and most elaborated in the Southern family, I shall, for convenience of description, place the latter next, although the true gradation is thereby disturbed.

Supplement to Sub.-Sec. 4.

A. PRONOUNS.

The 3rd pronoun is used separately as the verb absolute. The personal elements of the verbs are contracted and agglutinated varieties of the separate forms which must first be noticed. They have a definitive prefix *a*, *an* (current as a separate def. in Malagasy &c) which has become an integral part of the pronoun, and

even survives and represents the root itself in several instances. The pronouns are formed of a few definitives, compounded, agglutinated, contracted and transformed so variously, that it is difficult to ascertain which roots were the primitive pronouns.

The 1st person appears to have had as its full composite form *anoki* Heb.; *anok*, *anak*, *anag*, Copt.; *anek*, *anuk*, *enek*, *nek*, *nuk* Egypt; *nekki*, *nek* Berber. As both *n* and *k*, as well as vowels, are found as the 1st pronoun in Assyro-Berber and other African languages, the correct analysis of these terms is beset with obstacles. There are clearly two elements at least, 1st, *an*, *en*, *na*, *ne*, *no*, *nu* &c and 2nd *ki*, *h*, *g* &c. But the prefixal *a*, *an* &c. is probably a 3rd element, purely definitive. *Ana*, *an*, *a*, *e*, *na*, *n* &c maintains its ground in most of the contracted forms in all the languages, but as it is found in the 2nd person and in some languages in the 3rd also, it would appear to be primarily the common nasal definitive and demonstrative, which is attached to pronominal roots in some other formations also,—African, Scythic, Dravirian &c. *A*, *e*, has acquired a true pronominal power from becoming concreted with the other elements of the 1st person, and is thus capable of representing the 1st person in the Assyro-Berber formation when these other elements are lost, and of being transferred as such to other formations. It must the more readily have taken a personal meaning since the 1st pronoun is closely connected with the 1st definitive and locative ("this," "here"). In most formations they are primarily identical. When a definitive has become appropriated to the personal office, it often happens that the mind reverts to the original definitive and locative idea, and restores its glossarial expression by attaching a second definitive to the personalised one. This arises from the desire to give greater material or local distinctness and force to the personal definitive. "*I*"—itself primarily "this"—becomes "*this-I*," or even "*this-here-I*." In other cases the pronominal roots merely take a generic definitive—singular, plural, or both—like nouns. From the prevalence of *a*, *an*, *na* in the Semitico-African pronominal system, it may be inferred that in the mother formation, it was a common definitive for nouns. It is preserved as such with the simple vocalic form in many African languages both as a 3rd pronoun and as a def. pref., and

with the nasal and liquid consonant in the Malagasy prefix *ny*, the Arabic separate definitive *el, al*, the Egyptian demonstrative pl. *na* and as a pref. and postf. in several Mid African languages.

Its definitive office in the pronominal compounds is indicated by such examples as the Egyptian 1st *en-(n)-ek*, 2nd *en-t-ek*, masc. *en-ta* fem., 3rd *en-tu-f m.*, *en-tu-s f.*; Tumali, 1st *ñg-i*, 2nd *ñg-o*, 3rd *ñg-u*, poss. *r-i-ñg*, *r-o-ñg*, *r-u-ñg*; Berber, 1st *ne-kki*, 3rd *ne-tta*; Babylonian 1st *an-(n)-ak*, 2nd *nan-ta* or *an-ta*; Arab. 1st *an-(n)-ā*, 2nd *an-ta*; Hebrew, 1st *ăn-(n)-i*, *an-ok-i*, 2nd *a-ttah*; Amharic, 1st *en-(n)-e*, 2nd *an-t*; Galla 1st *an-(n)-a*, 2nd *a-ti*. In Zimbian it is postfixed, e. g. Kosah 1st *mi-na*, 2nd *we-na*.

The true solution of the anomalous and irregular character of *na, an* in the Semitic pronominal system appears to be that it was a definitive archaically appropriated to the first pronoun, but also current as a pure definitive. As a definitive it was preplaced in the form *an* or *a* &c. to all the pronominal roots and ultimately became prefixually agglutinated with them. If its full form was *an, en* &c. the *n* merged in the *n* of the root in the first pronoun. Thus the Eg. *en-ek* is probably a contraction of *en-n-ek*. But *a, e*, &c. may be the full def. and *n* in the 2nd and 3rd pronoun merely a euphonic augment. The euphonic agreement of the 1st element in all the three pronouns makes it more probable, however, that *en*—is throughout definitive, and if so the pronominal *n* of the 1st must be considered as elided or merged in the *n* of the prefix.

I have divided the words in accordance with the actual forms into which the agglutinative, rhythmical and euphonic laws of each language have amalgamated and concreted the primary elements. The following table exhibits them in accordance with what appears to have been the archaic composition, but taking *n* as the root and *a, e*, as the def.

1ST PERSONAL PRONOUN.

Separate forms.

a-no-ki Heb.

a-n -i „

a-nu Danak.

e-nu „

a-na-k	Babylon.
a-na	Ar.
e-ne	Amh.
a-nu-k	Eg.
a-ne-k	„
e-ne-k	„
a-no-k	Copt.
a-na-k	„
a-no-g	„
a-na	Galla
a-ni	„
i-na	Hausa (inv.)
i-n	„
nia	„ (inv. of i-na.)
ne-k	Eg.
nu-k	„
ne-ki	Berb.
a — hu	Malagasy (iz-ahu when preplaced)
a — hy	Malg.

Prefixed and Postfixed forms

n—i	Ar. Heb.
a-n—i	Bab.
i	Bab., Eg. Berb.
nġ-i	Tumali
na-i	Copt.
no-i	„
nu	„
na	Hausa
ng	Vei
a	Bab., Ar., Eg.
u	Ar., Eg., Berb.
ua	Bab. prob. from <i>tunva</i> , euph. for <i>tua</i> .
y	Berb.
i-w	„
yi	„
ey	„
e	Heb., Bab. Gara, Ethiop. (aorist)
i	Dank.

ti (for *ki*) Heb. (Pret.)

ek Gar.*

tu Ar.

tu-wa Bab.

ku Ethiop.

agh Berb.

agh-d (*d* euph.)"

ko Galla

ku, u Malagasy (poss.)

ti Hott. (poss.)

ti-re „ (m.)

ti-ta „ (f.)

si-k-ye „ (pl. m.)

si-si „ (pl. f.)

si-da „ (pl. c.)

The Hausa *ina*, *in*, *nia*, appear to be inverted forms. *N* also occurs in the plural of Woloff *non*, and Sereres *i-non*, which are reduplicated Egyptian forms (*nen* Eg. "we ourselves"). Comp. the Dravirian. In the Babylonian plural affix *huni*, *ku* appears to be the pronoun, although in *ani* the pronoun is *ni*. In the other pl. affix *e-tte-ni*, *ni* again occurs as the pl. particle. *Hu* corresponds with the Ethiopic *ku* (Galla *ko*, Malagasy *hu*, *ku*).

Whether *an* (*na*) or *a* is the radical form is not free from doubt, although the evidence is strongly in favour of *an*, *na*. *A* itself is very prevalent throughout the linguistic world as a definitive, separate or annexed, and it sometimes takes *n* merely for the sake of rhythm or euphony, to give fullness to a word, to prevent the abrupt meeting of vowels, or because the national phonology affects nasal finals. In the Africo-Semitic province *na*, *an* appear to be the original forms, but *a* is also very current, not always however as a contraction or variety of *na*, *an*. The light vowel *e* is found in the African pronouns—Amharic, Danakil, Egyptian, Berber,—as in some of the Semitic varieties of the 2nd person. The weakening of a *a* to *e* is common in Semitic phonology.

An, *na*, *a*, *e*, &c. by itself is the 1st pronoun in Galla and Hausa, *na*; in the annexed forms of the Arabic aorist, *a-*, *e-*; Hebrew, Gara and Ethiopic aorist *e-*; Egyptian,—*a*; Galla, present,

* The Maltese and later Samaritan have also *k*. See Eth. Gall., Malag.

-a, aorist, -e. Egyptian has also -u from a-n-u- k, n-u-k (Coptic a-n-o-k, Hebrew a-n-o-k-i, Danak. e-nn-u).

It should be remarked that in most cases the annexed *a* appears to be derived from the final *a* of *ana* or *ana*, as *u* is from *anu-k*, *nu-k*. This also renders it probable that *e* is derived not from the prefix *a*, but from the postfix *i*. But the interchange of *a* and *e*, *i* and *e* obscures this.

The guttural element probably represents a very archaic Semitic pronoun. It is preserved in the Malagasy *a-hu*, *iz-a-hu*,—*a* and *iz* being prefixed definitives like *a* (and *na*, *an*) in Semitic, and *k* being commutable with *h* in Malagasy-Polynesian phonology. In the poss. form (*ku*) the guttural is found, and it also keeps its place in the Galla poss. (*ko*). The archaic and pronominal character of *k*, *h* in the Semitic formation is evinced by its presence as a possessive in the Ethiopic and Galla postf. of the Pret. (*ku*, *eh*), changed to *t* in the Arabic *tu* and Hebrew *ti* (from *ki*), and in plurals, as *a-na-h-nu* Heb., *na-h-nu* Heb. and Ar. (for *a-na-h-nu*, *na-h-nu*). The postfixes in *i* appear also to attest the archaic existence of *hi*. On the other hand *na*, *nu*, *ng*, *n*, *a* speak to the ancient prevalence of *n* with a pronominal force. We must infer a mixture of two pronominal systems, unless one of the forms had originally a distinct meaning from the other. Both elements occur in the 2nd pronoun and *k* with a masculine force, as in Euskarian and the plurals of Hottentot (nouns and pronouns, *ku* m., *te* f., *na*, *da* com., the Semitic pl.) It is probable that in the 1st pronoun also *k* was primarily the masculine def. That *n* was primarily the absolute definitive as well as the pronominal root in the 1st person there can be little doubt.

The postfix *i* appears to have had the character of a singular definitive, for it is replaced by *nu*, *u* in the plural. Heb. *a-no-k-i*, s., *a-na-h-nu* pl.; postf. *n-i*, *i* s., *nu* pl. In other African formations *i* is common as the vowel of the 1st person (Zimbrian, *mi* generally). In the Semitic formation it had primarily a feminine force, the masculine taking *a*, *u*, (*o*). If the 1st person had originally masc. and fem. forms, the *i* of *a-no-k-i* &c. &c. would appear to be a remnant of the latter. (See remarks on the 2nd person).

2ND PERSONAL PRONOUN.

Separate forms.

a-tt-a-h	Heb. masc.
a-t	Heb. fem.
ha-t-a	Gara.
ha-t	Mahrah
an-t-e-h	Chald. m.
an-t-a	Ar. m.
an-t-i	„ f.
a-t-i	Galla com.
an-t	Amh.
en-t-e-k	Eg. m.
n-t-o-k	Cop. m.
n-t-a-k	„ „
n-t-k	„ „
n-th-o-k	„ „
en-t-a	Eg. f.
n-t-o	Copt. f.
n-th-o	„ „
k-e-chch-i	Berb. (<i>ch</i> for <i>k</i>)
k-e-mm-i	„ f.
k-a	Haus. m. (suff. Semitic form)
k-i	„ f. (Ib.)
i-o	Dankali

Prefixed and Postfixed forms.

k-a	Heb., Ar. Eth. m.
k-i	Ar. Eth. f. (for <i>tī</i> as in an- <i>tī</i>)
ek	Heb. f. (inv. of k-e for t-e or ti)
esh	Gara, Amh. f. (pret.)
k	Bab. f.
t-ā	Heb. Ar. m. (pret.)
t-a	Ar. m. (aor.)
t-a	Ar. f. with i-na postf. to root (aorist)
t-ī	Ar. f. (pret.)
t	Heb. f. (pret.)
t-ī	Heb. m. (aor.)
t-ī ī	} Heb. f. (aor., the ī postf. to root)

t-e	Gara, Eth. m. (aor.)
t-e i	} Gara, Eth. f. (aor. the <i>i</i> displacing a vowel of the root in Gara, and being postf. to the root in Eth.)
e-k	
i-k	Gara, Eg., Berb. m.
a-k	„ „
k	Eg. m.
et	Eg. f. (inv. of t-c)
t	Eg. f.
t	Berb. c. pref. with <i>d</i> postf. in the
ke	Galla c. [m. and <i>em</i> in the f.
ku	Dank. c.
im	Berb. f.
em	„ „
e-k-im	„ „
e-k-m	„ „

The *a*, *an* corresponds with the *a*, *an* of the 1st pron. and in the 2nd retains a purely definitive character, as it nowhere occurs as a pronominal element in any of the elliptic forms. It is possible that the *n* is merely euphonic in the 2nd person, *a-n-t* for *a-t*, the nasal being not an uncommon euphonic augment of *t*, *d*, *k*, *g*. If so the Hebrew *a-t*, *a-tt* is the original form. Even in the 1st pronoun the *n* may have been originally merely euphonic to separate the prefixal *a* from the *o*, *u*, *a* of the 1st pronominal root.

The 2nd pronoun appears to contain only one root, *t* (*ta*, *to*, *te*, *ti*) which in some cases has become *th*, *sh* or *k*. In Galla *zi* is the obj. sing. and ag. and obj. pl. *iz-in*. In Hottentot it may be recognized in *sa-at*s *m*., *sa-as* *f*.; *sa* com. in Poss. and Pl.

The postfixes are definitive and sexual. *K* is obviously masculine. In Hebrew and Chaldee it is softened to *h*, as in the 1st person.

The fem. forms are in most instances the simple pronominal root and its prefix, without the masc. postf. In others the vowel becomes fem. *i*, *ĩ*. The fem. vowel remains distinct and separate in some of the verb forms, being either postfixed to the root where the pronoun is prefixed or displacing a vowel of the root.

The phonetic change of *t* of the root to *k*, which is also the masc. postf., creates some apparent obscurity and irregularity of

flexion. Thus the fem. *ek* of Heb. is phonetically identical with the masc. *ek* of Gara, Egyptian and Berber, but the former is evidently an inverted form of the root *te*, *ke* (as in the Chald. an-*t-e-h*; Egyptian en-*t-e-k*, *e-t*; Berber *k-e-chch-i*, *ek-im*) while the latter is as clearly the masc. postfixed definitive, representing the pronoun (Chald. an-*t-e-h*, Eg. en-*t-e-k*).

In the separate forms the fem. is generally the simple root, the masc. being indicated by its postf. But in some of the annexed forms the converse is the case. Thus *ta* is masc. and fem. in the aorist of Arabic, *te* in that of Gara and Ethiopic, and *ti* in that of Hebrew,—the fem. gender being indicated by its vowel *i*, *ĩ*, as an infix or postfix of the root. In the Berber separate form the vowel of the postfix is *i* both in the masc. and fem. as in the Hebrew, and the fem. does not lengthen it, being distinguished by the consonant *m*, which is anomalous. It may be derived from an archaic plural form in *n*, *m* ("you" for "thou"). It is found without gender in Bornui as the personal postf. of verbs, *mi* (the sep. pronoun being *ni*).

The irregular elliptic forms have also led to *t* appearing to be a fem. particle, for in some cases the masc. is *k* and the fem. *t*. But this, as we have seen, arises from the root (*t*) being common to both genders, and to the masc. in the full forms superadding the masc. postf. *k*.

The plurals are distinguished by the plural *n*, *m* def., and partly by a change in the vowel. In the 2nd and 3d persons the consonant is *m* in the masc., and *n* in the fem. form. The vowel *u* has evidently a plural force in several instances, and it must be identified with the Egyptian plural of nouns (*u*). In other African systems, including the Zimbrian, *u* has also a plural force, and in some cases is used by itself as a pronoun. The full Semitic form *nu* also appears in several of these systems, as the plural of the 2nd and 3rd persons, when the singular has a distinctive root. A few examples will suffice. 1st Pers. Heb., a-*nō-kī* S., a-*no-h-nu*, *nu*, *nī* aor. P.; Arabic a-*nā* S. a-*na-h-nu*, *nā*, *na- -u* (aor) P.; Berb., ne-*kki* S., ne-*k-ni*, ne-*g*, e-*g* P. 2nd person, Heb. masc. a-*tt-ā-h* S., a-*tt-em*, k-*em*, (pret.), t-*em* aor. ti- *-u* Pl.; fem. a-*t* S., a-*tt-en*, k-*en* (pret.) t-*en*, (aor) ti-*nāh*. Pl. Ar. masc. an-*ta*, ka S., an-*t-om*, k-*om*, pret., t-*om*, aor. ta- *-una* Pl.; fem. an-*ti*, ki &c. S., an-*t-anna*, k-*onna*, pret. t-*onna*, aor. ta- *-na* Pl. Berb. masc. ke-

chchi S., *ku-n-wi*, *we-n*, *e-we-n*, *ku-m*, *e-ku-n*, on Pl.; fem. *ke-m-mi* S., *ku-n-wi-th*?, *we-n-t*? *e-we-n-t*, *e-ku-n-t* Pl.

In some cases, it will be seen, the sexual definitive represents the pronoun, as the masc. *h* does in the singular. This occurs in Hottentot also, and in some foreign systems.

The full Semitic 3rd pronoun contains two elements, 1st, *hu*, *ho* with the contractions *u*, *o*, and the fem. and plural vowel variations, *hi* fem. S., *he*, Pl. (as in the 2nd pronoun); 2nd, *a* with the euphonic augments *w* and *y*. The Arabic masc. *ho-wa* (for *ho-a*) and fem. *hi-ya* (for *hi-a*) are examples of the full form. The plural is formed as in the 2nd person,—the Arabic, for example, taking om m. *onna* f., and the Hebrew em m. *en* f. In the separate plurals the 2nd element of the pronoun (*a*) disappears. It appears to be preserved in several of the affixed forms S. f. *ah* Heb., *ha* Ar.; P. m. *am* Heb.; P. f. *an* Heb. In the tense forms the aspirate element occurs in the Pret. f. *-ah* Heb. and Aor. f. *n-ah* Heb., *n-ah* Ar., but the latter is doubtful, as the same form is the 2nd Pers. f. in Heb. (*n-ah*), derived from the separate form *a-tt-ah*. The 2nd element occurs in the Pret. S. m. of Ar. *-a*, in the Aor. S. and P. (retaining its euphonic augment) *yi-* Heb., (*i* for *a* as in the Heb. aorist throughout, save in the 1st pers. S., which has *e-ai*); *i-* Babylonian, Berber; *ya-* Ar. The aspirate form is retained in Hottentot, *haha* Bosj., and in the Korana demonstrative *hi*. In Babylonian the aspirate changes to the sibilant (*su*) and Hausa has the same form. It is also found in Egyptian (fem. in Sing., common in pl.), Berber (the converse), Saho, Bornui shi, Galla *izi-n*, *izi*, *za*, and its derivative Malagasy *izy* &c. In other African languages it is common as a definitive, and also occurs as such in the prefix of the Malagasy 1st pron. *iz-a-ho*. The Babylonian plurals *uss-en*, *s-en* m., *s-en-t* f., are Egyptian (*en-te-s-en*, *s-en*) and Berber (*as-en*, *s-en* m., *s-en-t* f.). The distinctive fem. form of the plural has been lost in Egyptian, *s-en* being common. It will be remarked that the vowel is Hebrew (*h-en*) and not Arabic (*h-on*). This is in accordance with the conclusion arrived at in a subsequent place, that the earliest of the proper Semitic languages that modified the N. African, belonged to the Euphrates branch. The Hebrew-Aramean development, as distinguished from the Arabic, appears to have become dominant to the Mediterranean on the one side, and to the Persian Gulf on the other, spreading

over South Arabia, where the Himyaritic, with its Arabico-Aramaean traits, attests its archaic influence. It was thus enabled to penetrate the Nilotic basin at two points, and modify the native proto-Semitic languages, and may be said to have surrounded and insulated the Arabic. It also spread westward along the southern coast of the Mediterranean. The Phœnician power and influence was a later and more limited development of the archaic Euphrates civilization and predominance. The language it dissiminated was the Hebrew which appears to have exercised a feeble influence in Africa compared with the cognate eastern and southern languages—the Aramæo-Himyaritic.

In the Semitic verb or tense forms *t* occurs as a particle of the 3rd person and generally fem. Ar. *at* Pret. S. (*na* P.), *ta* - *u* Aor. S., *ta* - *nah* Aor. P. Heb. *ti* Aor. S., *ti* - *nah* Aor. P.; but as *ta* and *ti* are the 2nd person (masc. and fem.) also, their precise derivation here may be doubted. In the demonstrative *ta* Ar., *zôh* Heb. (masc. *zeh*), *t* is unequivocally feminine, as in the noun postfix and in the Babylonian *s-en-t*. The conclusion inevitably is that *ta* is radically a mere definitive, and enters into both the 2nd and 3rd personal pronouns. As the tense forms of the pronouns must, in general, be the most archaic, it results that *ta* was current as a 3rd pronoun before it was superseded in the separate forms by *hu*, *su*; *su* however being evidently the original of *hu* and itself a variation of *t*, as in the Indo-European definitives and 3rd pronouns. If so, the 2nd and 3rd pronouns of Semitic were originally connected, as in some other formations, and corresponded to the 2nd and 3rd demonstratives, as the 1st pronoun did to the 1st demonstrative. If the archaic African formation was Semitico-Libyan, or even if the North African languages were Semiticised when the archaic Euphrates civilization predominated from the borders of the Indian Ocean to the Straits of Gibraltar—long before the rise of the Phœnician and the comparatively modern Arabic influences—it is probable that the African languages preserve many traits of the Semitic formation in its less disorganised condition. We accordingly find that in Egyptian the original connection between the 2nd and 3rd persons is preserved in the separate forms, while Berber strongly supports it by the form of its separate 3rd pronoun, and several of the annexed forms. In Egyptian the 2nd

pronoun sep. is *en-te-k* m. (Copt. *n-to-k*, *n-ta-k*, *n-tho-k*, *n-t-k*), *en-ta* f., where *t* is simply the Semitic root of the 2nd pron. (*en* occurring in the 1st and 3rd pronouns also), but with an acquired feminine function, from the masc. taking the postfix *k*, and from *ta* as a def. having also acquired a fem. character. The 3rd pronoun sep. is *en-tu-f* m. (Copt. *n-to-f*, *n-t-a-f* &c) and *en-tu-s*, *en-te-s* f. (Copt. *n-to-s*, *n-ta-s* &c). Here the *tu*, *te*, *ta* of the 3rd pronoun is evidently the *te*, *ta*, *to* of the 2nd. The superadded *s* of the fem. is radically identical with *th* and *t*, and it has here its acquired sexual function, but it is probable, from the plurals both in Babylonian and Egyptian, that *tu-s*, *te-s*, was originally a common form, and that a distinctive sex postfix was given to the masc. form only. The archaic Egyptian affix forms of the 3rd pron. *su*, *se* masc. *es* f. shew that when they were so used the sexual function of *s*, *t* had not become determinate. The Egyptian demonstrative *su*, *seh*, (common) and the allied Semitic forms of the 3rd pronoun m. and f. (*hu*, *su*, *hi* &c) are records of the same archaic stage, in which *t*, *s*, *h* was simply a definitive not yet appropriated to the feminine gender. In the Egyptian plural (*en-te-s-en*, *s-en*,) *te-s* and *s* are common, and in Babylonian this was at one time the case also, for, by a converse change, *s-en* has become masc., the fem. taking *t* in its acquired fem. sense [*s-en-t*].

The Berber *t* is also the 3rd person com. (with the prefix *na* of the 1st) S. *ne-tta* m., *n-tte-th* f.; Pl. *nu-th-ni* m., *nu-th-ne-t* f. Here *t* is the definitive common to both genders, and the fem. *t*, *th*, is superadded in the fem. as in Babylonian. The annexed forms are *is*, *es*, *as*, *ith*, *it*, *eth*, *th* S. (com.); *se-n*, *a-se-n*, *i-th-n*, *e-th-n* P. m. (Bab.); *se-n-t*, *a-se-n-t* P. f. (Bab.) Comp. the Eg. plurals.

These forms, no less than the Arabic fem. demonstrative *ta*, and the Semitic fem. postfix of nouns, shew that *t*, *s*, *h* had acquired a feminine power before the proto-Semitic formation invaded Africa, and this is fully confirmed not only by the Semiticised languages of Mid-Africa but by Hottentot. In the last also we must consider *s* as the original common definitive, and the labial as the distinctive masculine one.

In Hausa the 3rd pronoun has *s* in the masc. and *t* in the fem., but each is also neuter,—m. and n. *shi*, *sa*, *ya*; f. and n. *ta*, *i-ta*, *ta-i*. The Pl. is common, *su*, or with the Semitic plural post.

sung. From this it appears that Hausa also speaks to the original absolute power of *s*, *t*, as a definitive.

The second element of the Semitic 3rd pronoun *a* (*wa*, *ya*) occurs in Mandingo dialects,—Susu *a* S., *e* P. (a Semitic flexion), Vei *a* S.—and probably in the *o* of Fulah, Yebu and Yoruba. It is common in the Africo-Semitic languages as an archaic definitive, the prefixed *a* of the Semitic pronouns being an example of its use. The Hebrew definitive is the same particle. The Galla demonstratives *a-na*, *k-a-na*, “this”, *za-na*, “that” involve four common definitives. The Arabic *al* corresponds with the *an*, *na*, *ad*, *da* of African languages, and *a* may be a contraction of it, as has already been remarked.*

The article is prefixed in Hebrew, preplaced in Arabic, and postfixed in Aramean (Syriac and Chaldean). The pronouns shew that its prefixal position is very archaic. In Indo-European the primary definitives were chiefly postfixal, as in Caucasian and Scythic. In Greek the definitive is preplaced as in most modern European languages, whilst in Armenian and Scandinavian it is postfixed.

The following examples will shew the mode in which pronouns and substantial roots are combined in the Semitic languages. I give some Egyptian and Hottentot forms also to illustrate the archaic and non-agglutinate stage of the Semitico-Libyan system.

HOTTENTOT.

Present (root, *fnau*).

S. 1 <i>fnau-r-na</i> m. <i>fnau-t-na</i> f.	P. <i>fnau-k-ye-na</i> m. <i>fnau-s-a-n</i> f. <i>fnau-d-a-na</i> c.
2 <i>fnau-ts-na</i> m. <i>fnau-s-na</i> f.	<i>fnau-k-au-na</i> m. <i>fnau-s-au-na</i> f. <i>fnau-d-u-na</i> c.
3 <i>fnau-b-na</i> m. <i>fnau-s-na</i> f.	<i>fnau-k-u-na</i> m. <i>fnau-t-i-na</i> f. <i>fnau-n-na</i> c.

* For further illustrations of the wide prevalence in Africa of the Semitico-Libyan pronouns and definitives, the Mid-African and Malagasy sub-sections may be referred to.

*Imperfect.**Sing. masc.*

- 1 fnau-r-ko-ha
2 fnau-ts-ko-ha
3 fnau-b-ko-ha

*Future.**Sing. masc.*

- 1 fnau-r-ta
2 fnau-ts-ta
3 fnau-b-ta

*Perfect.**Sing. masc.*

- 1 fnau-r-kye-ha
2 fnau-ts-kye-ha
3 fnau-b-kye-ha

Subjunctive Present.

- 1 a-rifnau
2 a-atsfnau
3 a-abfnau

Passive, Reflective, Reciprocal, and Objective or Transitive, forms.

- Pas.* fnau-er-na
fnau-er-ta

"I am struck" (ti-re "I")

"I shall be struck."

- Refl.* fnau-sin-e-na

"strike-self-I-do."

(e for er or re "I")

fnau-sin-z-na

"strike-self-thou-dost."

fnau-sin-im-na

"strike-self-he-does."

(im from que-im-b, "he")

- Rec.* sida-na-fnau-ku

"we-do strike-(each other.)"

- Obj.* tir-na fnau-zi

"I-do strike-you."

or

fnau-zi-r-na

"strike-you-I-do."

saaz-na fnau-re

"you-do strike-me."

or

fnau-re-z-na

"strike-me-you.do"

fnau-re-b-na

"strike-me-he-does"

EGYPTIAN.

Present.

- S. 1 iri a
2 iri ek m.
iri et f.
3 iri ef m.
iri es f.

- P. 1 iri en
2 iri t-en
3 iri s-en

COPTIC.

Present.

- S. 1 ei iri

- P. 1 en iri }
t-en iri }

2	<i>ek</i> iri m.	2	<i>te-t-en</i> iri	} com.
	<i>te</i> iri f.		<i>er-et-en-iri</i>	
3	<i>ef</i> iri } m.	3	<i>u</i> iri	} com.
	<i>ere</i> iri }		<i>se</i> iri	
	<i>es</i> iri }		<i>ere</i> iri	
	<i>ere</i> iri } f.			
	<i>Past.</i>			
	<i>Eg.</i>			
1	iri-en- <i>a</i> , or iri-en- <i>u</i>		Copt.	
2	iri-en- <i>ek</i> m.		<i>na</i> iri pe.	
	iri-en- <i>et</i> f.		<i>na</i> iri pe m.	

In phonetic development or agglutination the Hottentot makes a closer approach than Egyptian to the Semitic. But as Egyptian, from its geographical position, has always been nearer Semitic, I have placed it between the latter and Hottentot, which was probably derived from an Upper Nilotic formation. It will be remarked that the Hottentot forms of the 3rd person m. and f. are Egyptian. The Hottentot 2nd person agrees phonetically in the plural with the Egyptian singular, in having *k* for the masc. and *s* (= *t*) for the fem. But the primitive definitive masc. power of *k* is seen from its occurrence in both the 1st and 2nd pronouns of Hot. (separate forms, 1st S. *ti-re* m. *ti-ta* f.; P. *si-kye* m., *si-see* f.; 2d, S. *sa-az* m., *sa-as* f.; P. *sa-k-au* m., *sa-s-au* f.). If the Hottentot *re*, *er*, *e* is the Semitico-Egyptian *ne*, *en*, the 1st person corresponds with the Semitic poss. and obj. affix *ni*, *i* and the agentive prefix *e* (Hebrew aor.). The Semitico-Egyptian consonantal plural postfix *en*, *na*, *n* &c. appears in the Hottentot com. forms (*d*, *n*). The Semitico-Egyptian vocalic plural *u* is used in the Hottentot 2nd person (m. f. and c.) and in the 3rd person.

BERBER.

Aorist (Past, also present and future.)

S. 1	<i>sekre</i>	P. 1	<i>nesker</i>
2	<i>theskeret</i>	2	<i>theskerem</i> m.
			<i>theskeremt</i> f.
3	<i>isker</i> m.	3	<i>eskeren</i> m.
	<i>thesker</i> f.		<i>eskerent</i> f.

The mode of indicating the plural f. by postfixing *t* to the masculine (originally common) form, is Babylonian and Egyptian (possessive and objective postfixes). The general character of the

Berber conjugation is distinctively Semitic, and not Egyptian or Hottentot. Both it and Egyptian have superadded Semitic pronominal traits (chiefly Assyro-Arabian), to their archaic Semitic-Hottentot basis. The Berber conjugation system is evidently in a large measure of secondary Semitic origin, Babylono-Himyaritic through ancient Ethiopic. If the archaic Hamitic or proto-Himyaritic language of S. Arabia possessed special Babylonian traits, the Semitic acquisitions of the Berber conjugation might be ascribed to one source, the language of a Hamitic race which preceded the Phœnicians as the predominant maritime one. In many respects the pronominal traits are Hebrew more than Arabian. The closest affinities of the Berber are with Ethiopic, Gara (probably a form of Himyaritic) and Babylonian. The Berber 1st person *eg*, *agh*, is Gara, *ek*, and Aramean (Samaritan), but not Ethiopico-Arabian (*ku*, *tu*), or Hebrew (*ti*, *ki*) although *eg*, *ek* is akin to *ki* of the latter. The terminal of the 2nd person S. (com.) is the fem. of Egyptian (*et*) and Hot. (*t*), and of the Hebrew fut (*t*); and the prefix is the Ethiopic and Gara aorist. The 3rd person m. (*i-*) is Babylonian, (but the *yi-*, *ye-* of the Hebrew and Arabic aorist also have it in another form). The f. (*the-*, *t-*) is the Ethiopic and Gara aorist (*te-*, *the-*, Hebrew *ti-*). The 1st person pl. is the aorist of Ethiopic, *ne*, Gara, *ne*, Babylonian and Hebrew *ni*. The 2nd person combines the aorist prefix of these languages (*te* Ethiop., Gara, *ti* Hebrew) with the Hebrew preterite suffixes irregularly applied (Hebrew m. *t-em*, Grra *k-em*, Eth. *k-em-u*, Berb. *em* without the pronominal element; Hebrew f. *t-en*, Gara, Eth. *k-en*, Berb. *em-t*, *t* originally postfixual, as in Babylonian. The 3rd person pl. is irregular, having the postfixes of the 2nd with the plural particle in its Semitic fem. form, *en*, *en-t*.)

BABYLONIAN.

The verbal forms of the pronouns are always prefixed.

1st Person *a*, *e*; 2d *t*; 3rd *i* S.

ni; ? ; -n P.

They do not vary with the time, so that Babylonian is more primitive and African than the other Semitic languages. The possessive and objective suffixual forms are, 1st pron., S. *ani* (verbs), *t-uwa*, *e-ttuwa* (participles), *ua*, *i* (nouns); P. *huni*, poss. *e-tten-i*; 2nd, S. *k* (the P. is wanting); 3rd, S. *s* com., P.

sen masc. (comp. Hebrew *hen* f., *hem* m.; Egypt. *sen* com., masc) sep. form u-sen as in Saho; sen-t fem. identical with Berber sen m. sen-t f., as tense suffixes en, en-t. The dat. and obj. prefix or *postfix* directives an-ussen, ussen-at, sen-at, sen-ut.

ETHIOPIC.

Preterite.

S. 1	gabarku	P. 1	gabarna
2	gabarka m. garbarki f.	2	gabarkemu m. gabarken f.
3	gabera m. gaberat f.	3	gaberu m. gabera f.

Aorist (Future, Present.)

S. 1	egbar	P. 1	negbar
2	tegbar m. tegbari f.		tegbaru m. tegbara f.
3	yegbar m. tegbar f.		yegbaru m. yegbara f.

Ethiopic is Arabic in the Pret. Sing. throughout (the *k* being in Arabic allied to *t*); Hebrew, Arabic and Gara in the 1st person Plural; Gara and Hebrew in the 2nd person Plural m. and f. (the Arabic having changed *te-mu* into *t-o-m*, and *te-no* into *tonna*); in the 3rd person pl. it is Arabic and Hebrew (with the fem. *na* contracted to *a*).

In the Aorist Singular it is also Gara and Hebrew (the latter effecting *i* more than *e*). In the pl. it is Hebrew and Gara, Ethiopic however contracting the fem. *na* of the 3rd person to *a*, and the Gara eliding the masc. terminal and transferring it, in an Arabic form, to the fem. (*un*, Ar. masc. *una*).

Himyaritic appears to lean still more to Hebrew than the Ethiopic, while Gara is more akin to Ethiopic. The correct inference would appear to be that the dialects of Southern Arabia had at one period a strong Assyro-Hebraic character. They were either Arabic modified by Hamitic or the converse. In the latter case it would seem probable that the Hamitic linguistic province included Southern Arabic before Arabic spread into it. The Himyarites were probably of Hamitic (Assyrian) origin at a period preceding the decay of Aramean, and when it had Hebrew as well as Arabic traits, which it lost in the proper Aramean province, owing probably to contact with Scythic. At a later period the South Arabian languages became Arabicised or further Arabicised, and this was the era of the Gara and-Ethio-

pic. The Babylonian, decayed as it had become in the era of its records, is still more archaic in some respects. Its African influence must have preceded the Himyaritic and Phœnician, unless the earliest Himyaritic was itself of Babylonian origin, as seems probable from the affinities of Berber. The migration of the Hamo-Semitic formation to Africa may have preceded the distinction between Aramean and Hebrew. If so, the Hamo-Semitic traits of Berber may represent the formation as it prevailed at a very archaic period in Palestine, the basin of the Euphrates and Arabia. In Arabic and Hebrew the archaic sibilants of Babylonian, Egyptian and Berber have been softened to aspirates.

GABA (OR EKHILI).

Preterite.

S. 1	zejidek	P. 1	zejedna
2	zejidek m.	2	zejedhem m.
	zejidesh f.		zejedhen f.
3	zejed m.	3	zejed
	zejedot f.		

Aorist.

S. 1	ezjod	P. 1	nezjod
2	tezjod m.	2	tezjed m.
	tezjid f.		tezjodun f.
3	yizjod m.	3	yizjed m.
	tezjod f.		tezjodun f.

HEBREW.

Preterite.

S. 1	katalti	P. 1	katalnu
2	katalta m.	2	ketaltem m.
	katalf f.		ketalten f.
3	katal m.	3	katelu
	katelah f.		

Aorist.

S. 1	ektol	P. 1	niktol
			tiktelu m.
2	tiktol m.	2	tiktolna f.
	tikteli f.		
3	yiktol m.	3	yiktelu m.
	tiktol f.		tiktolna f.

ARABIC.

Preterite.

S. 1	kabaltu	P. 1	kabalna
2	kabalta m.	2	kabaltom m.
	kabalti f.		kabaltonna f.

S.	3	<i>kabala</i> m. <i>kabalat</i> f.	<i>Aorist.</i>	3	<i>kabalu</i> m. <i>kabalna</i> f.
	1	<i>akbolu</i>		1	<i>nakbolu</i>
	2	<i>takbolu</i> m. <i>takbolna</i> f.		2	<i>tokboluna</i> m. <i>takbolna</i> f.
	3	<i>yakbolu</i> m. <i>takbolu</i> f.		3	<i>yakboluna</i> <i>takbolnah</i> f.

In Babylonian the agentive (i. e. possessive) pronouns are always prefixed. In Egyptian the position is properly suffixal throughout, with relation to the root in the present, and to the tense particle in the past and future. In Coptic they are throughout prefixal. In Berber they are postfixed in the 1st person S., and prefixed in the 1st person pl., in the 2nd p. s. and p., and in the 3rd p. s. In Hebrew, Arabic and Gara they are prefixed in the aorist and postfixed in the pret. The plural and sexual particles are generally postfixed. In the aorist they are hence attached to the root and not to the pronoun. U, like *n*, *m*, is generally a plural element. In the Arabic aorist it occurs in the singular also. The difference in the position of the pronoun may be connected with the archaic declension system of nouns, or it may be the result of the contact of two formations. Primitively the pronoun was probably preplaced in its full form and echoed in a contracted one, either prefixally as in Zimbian, Tumali and Circassian, or postfixally as in Iron, Scythic, Dravirian, Indo-European &c. An example will shew how the verb forms may have been thus produced.

HEBREW. (Pret.)

- 1 *ano-hi* *katalti*
 2 *m. a-ta* *kaltat*
 f. a-t *kaltit*

Arabic (Aor.)

- 1 *an-a* *kabalu* (*akbalu*)
 2 *an-ta* *kabalu* (*takbalu*)
 an-ta *kabol-i-na* (*takbolina*)

The circumstance of some of the annexed forms being not the pronominal roots themselves, but the accessory definitives—singular, plural, masculine, feminine—of the separate full forms, appears to be explicable only by the fact that they were reflections of the latter. The same phenomenon is found in the Dravirian, Scythic, Indo-European, and Hottentot systems.

SUPPLEMENTARY NOTE.

B.

Formatives.

Arabic is the richest of all the Semitic languages in verb formatives, having 13, of which the following are examples.

- 1 kàtāb (the root)
- 2 kàttāb
- 3 katāb
- 4 àktāb
- 5 t'kàttāb
- 6 t'katāb
- 7 enkàtāb
- 8 ektàtāb
- 9 ektāb
- 10 estàktāb
- 11 iktāb
- 12 iktautabb
- 13 iktawwab.

The 1st is the root. The 2nd is transitive, causative and intensive. If the root is intransitive, it renders it transitive. If already transitive, it expresses the causing of the transitive act in another. It also denotes intensity or iteration in the act; and in verbs derived from nouns it signifies to make or cause that of which the noun is the name. The 3rd has a transitive and generally reciprocal force, and it also expresses the aiming or studying to accomplish the act. The 4th, like the 2nd, has a transitive and causative force. The 5th (*t'*- prefixed to the 2nd) generally is the passive of the 2nd. The 6th is formed from the 3rd (by *t'*-) and sometimes renders it passive. It has frequently a reciprocal force, and also denotes simulation (intransitive). The 7th (*en*-) is reciprocal and passive. The 8th is also passive and reciprocal. The 9th denotes the having or acquiring a colour or a bodily defect. The 10th is desiderative and requisitive. The 11th is an intensifying of the 9th. The 12th and 13th are superlative, intensive or emphatic, but are rarely used. The forms are

often applied in a manner that has little analogy to their ordinary meaning.

The Hebrew has reflective, intensive, causative and other rarer forms, but each has various applications. That termed *niphal* is not only reflective, but denotes reciprocal action, and action for one's self, e. g. to put on (one's self). The intensive has active and passive forms. It primarily denotes intensity and repetition, sometimes that the act is performed on many, or is complex. Thus from the word signifying *to open* is formed "*to loose*". It sometimes denotes to cause, to permit, to regard, to help. The denominatives formed from it generally mean to make a thing (i. e. that expressed by the noun), or to be in any way occupied with it, or the taking away or injuring the thing of which the noun is the name. The causative forms (*hiphal* act., *hophal* pass.) render intransitive verbs transitive, and others causative.

A few leading ideas are at the bottom of the Semitic formative system, e. g. Active and Passive ; Transitive and Intransitive ; Causing and Becoming ; Increase and Diminution of force. It is precisely analogous ideologically to Scythic, Indo-European, Caucasian, Euskarian, African and Asonesian systems, and the same kinds of combinations and variations of particles and their powers occur in all.

In the Arabic system the most distinct forms are, 1st, the reduplicative (forms 2, 3, 8, 9, 10, 12, 13) which intensifies the root, as in most other formations, including the Indo-European ; 2nd, the prefix *t*, (f. 5, 6), passive, as in Berber ; 3rd, the prefix *en* (f. 7) reciprocal as in Egyptian, Berber (*em*), Zimbian &c. ; 4th, the prefix *e*, (f. 8, 9), passive ; 5th, the prefix *es* (f. 10) desiderative (causative in Himyaritic, Berber, Egyptian, Galla, Hausa, Zimbian) ; 6th the prefix *i* (f. 11, 12, 13) intensive, superlative. The forms which are only distinguished by changes in accent, or by transposition of the consonants, have probably lost the prefixes by which these changes were originally caused. Zimbian has forms with vocalic augments like the 12th and 13th of Arabic.

SUPPLEMENTARY NOTE.

C.

Concreted Definitives.

The free definitives still current in the Semitico-Libyan formation, or in some of its members, are mentioned at the close of sub-sec. 1. Those found in the Assyro-Berber sub-formation are examined in the Supplementary Note A. In the text it is remarked that "the triconsonantal character which most roots now have, appears to be attributable to the archaic habit of annexing a consonantal definitive to monosyllabic roots, as in Hottentot and other Libyan languages." The archaic character and relations of Semitic are considered in a later sub-section, in which this opinion is supported, and the primitive structure of its vocabularies is illustrated in the general glossarial Supplementary Note, at the end of the chapter. It may be stated here that all the Semitico-Libyan definitives are found concreted in the Semitic vocabularies, generally postfixually, but sometimes prefixually. In Mahrah the def. *ha-* or *za-* is a common prefix to roots. In the other vocabularies it is vocalic as a prefix (*a. e. &c.*), but is mainly postfixual under the common forms *-s, -t, -sh, -th, -ath, -d, -z, -tz, -ts, -h* (a variation of *-t*, in some languages a masc. flexion of it), *-hh, g &c.* *N, l, r, (d)* occurs as a postfix chiefly. The labial (*m, b, f*) is sometimes postfixed and sometimes prefixed. The vocalic definitives are common as prefixes and postfixes. The Himyaritic vocabularies affect *e-*, where Hebrew has *a-* or *i*, in accordance with their predilection for the lighter vowel. These vowels appear to be contractions of fuller forms. Many words have a vowel prefix in one vocabulary, and the same vowel preceded or followed by a consonant in others. The Hebræo-Himyaritic *a-* (varied to *e- &c.*) is in general a softer form of *ha, za, sa &c.* *Na, la, al &c.* also contracts to *a*. In some cases the root has both a prefix and postfix, and, more rarely, a double postfix. The great discordance presented by different vocabularies in the definitives that have concreted with the same root, shows that the archaic dialects from which the existing languages have descended, were formed while the definitives remained free, and were capable of being varied in their functions by dialectic causes. But it

must also be born in mind that each root, even in the same language, took several definitives at this stage,—masc., fem., or com., sing., dual, plur. Hence in the later concretionary stage, while one root cohered permanently with a sing. def., another attached to itself a plur., while one took a fem. prefix or postfix, another took a masc. In the transfer of such concreted words from one dialect to another, they were apt to superadd one of the free definitives of that dialect. Even in the same language it is clear that when the compound became a true concretion, a secondary definitive,—sometimes the primary one itself in its current or modern form—was occasionally annexed. In this respect the Semitico-Libyan formation resembles all other harmonic ones in which the use of definitives continued after the first concretionary stage. The decay of the dual idiom and that of gender in some languages, and their entire loss in others, necessarily led to a breaking up of the elaborate system of definitives, and to the confusion of the different particles. Some thus became absolute, others were concreted with roots, and some of those that remained current became generic..

This structure of the Semitic and Semitico-Libyan vocables, and the range of the concreted definitives, assimilates the archaic character of the vocabularies to that not only of the other African vocabularies, but of all others in the world, save the monosyllabic. The Shemo-Hamitic agglutinated compound of definitives and root resembles that of the elliptic and cohesive Caucasian more than any others.*

* In the following example the accretionary definitives are separated from the nucleus or root, and indicated by italics.

Bone.

la- <i>t</i> ,	Gara.
ai-la- <i>th-ir</i> ,	Mahrah.
a-la- <i>m</i> ,	Arabic.
na- <i>sh</i> ,	Agau.
na- <i>tse</i> ,	"
na- <i>tasi</i> ,	"
[a- <i>tse-mi</i> ,	Tigre.
a- <i>tse-mo</i> ,	Gafat.
a- <i>tse-nt</i> ,	"
la- <i>fe</i> ,	Galla.
la- <i>fa</i> ,	"
la- <i>fa-ti</i> ,	"
la- <i>fi</i> ,	"

In the Ethiopic varieties (Tigre, Gafat) the root, if Himyaritic, would appear to have lost its consonant, and if so the original Semitic postfix (the fem. dental or sibilant) was probably received as radical when a current native definitive (the Semi-

tico-Libyan *m*) was added.. In the Gafat *a-tsa-nt* the superadded definitive is a secondary *t*, nasalised for euphony, as often happens when *t*, *d* is a final. But those forms may be referable to the Hebrew term. The root is a common Asiatic one,

I.	ra- <i>tla</i> ,	Caucasian.
	ra- <i>dla</i> ,	"
	ro- <i>tli</i> ,	"
	re- <i>ka</i> ,	"
	li- <i>ka</i> ,	"
	lu,	"
	t-lu- <i>sa</i>	"
	r-or- <i>k</i> ,	"
II.	lu,	Ugro-Fin.
	ly,	"
	lu- <i>k</i> ,	"
	lu- <i>sh-am</i> ,	"
	lu- <i>sh-yn</i> ,	"
	luy,	Samoiede.
	ly,	"
III.	a-lu- <i>kei</i> ,	Pashtu.
IV.	a-ru- <i>kau</i> ,	N. Tangkul.
	nu- <i>k</i> ,	Khamti.
	a-ru,	Burman &c.
	a-rah,	Naga.
	n-rang,	Singfu.
	ru,	Khyeng.
	ru- <i>sha</i> ,	Sunwar.
	rhu- <i>s</i> ,	Chepeng.
	a-rhe- <i>t</i> ,	Lepcha.
	ru- <i>s-pa</i> .	Tibet.
	ro- <i>pa</i> ,	"
	ru- <i>ba</i> ,	"
	ru- <i>bo</i> ,	Mishni.
	ru- <i>t-ok</i> ,	Bhutan.
V.	e-la,	Malayalam
	e-lu- <i>mbu</i> ,	Tamál.
	e-lu- <i>me</i>	Karnataka
	e-lu- <i>vu</i> ,	"
VI. A.	ri- <i>uk</i>	Solor
	li- <i>d</i> ,	Erub. Murray I.
	ri,	Tarawa
B.	loh,	Bawian.
	lol-or	Komreng.

It will be remarked that the most prevalent root vowel is *u* (varied in a few instances to *o*). *A* prevails, without exception, in the Semitico-African varieties, and the Himyaritic form, in this as in so many other words, refers us to the Caucasian group for the immediate source of the Semitic vowel. The Caucasian slender variety, *li*, *re*, is connected with the Ugro-Fin *ly*, as its *lu*, *ro*, is with the Ugro-Fin *lu*. The Asonesian, like the Semitic varieties, are referable to Caucasian, as Dravirian and Asonesian vocables so frequently are. Comp. Solor *ri-uk*, with *Cauc. li-ka, re-ka*; Komreng *lol-or*, with *Cauc. lul*.

There is a second Semitico-Libyan root.

	ghe- <i>tz-em</i> ,	Hebrew.
	i- <i>gha-s</i> ,	Berber.
	ka- <i>shi</i> ,	Hausa.
	ma- <i>ke-cho</i> ,	Gonga.
	ma- <i>koa</i> ,	Makua.
	guhi- <i>ke</i> ,	Sereres.
	e- <i>gu</i> ,	Yuruba.
	e- <i>gugu</i> ,	"
	ku- <i>lu</i> ,	Mandingo.
	ku- <i>l</i> ,	Felup.
	gui- <i>el</i> ,	Fulah.

ko-tē,
ko-p,

Serakoli.
Hottentot.

The double postfix of Hebrew so closely resembles the Ethiopic a-tē-mi, a-tē-mo that it is possible the latter are referable to it and not to the Himyaritic form.

The root is an archaic Asiatic one, but not so widely disseminated as the other. The Chinese, Kamchatkan and Circassian forms suggest the probability of the sibilant in Semitic having always been part of the root. But the other African forms, with the Turkish and Georgian, show the guttural alone to have been current as a root.

I,	ku'	Chinese.
	kut,	"
	kuat,	"
II.	koth-am,	Kamchatka.
III.	ugah,	Turkish.
IV.	guei,	Georgian.
	kusha	Circassian.

POLITICAL AND COMMERCIAL CONSIDERATIONS RELATIVE TO
THE MALAYAN PENINSULA AND THE BRITISH SETTLE-
MENTS IN THE STRAITS OF MALACCA.*

CONSIDERATIONS ON THE SIAMESE CONQUEST OF QUEDAH AND PERAK.

IN the history of the first Malayan settlement at Singapura, we find that the emigrants from Sumatra found no inhabitants, and met with no opposition, and on their subsequent expulsion from thence, their establishments at Malacca, and again at Johore and other places, were effected under similar happy circumstances; nor do we read in the whole annals of Malayan history of their colonies on the peninsula, of one single instance in which a country was wrested by force, from aboriginal inhabitants. It has been admitted by the greatest philosophers and politicians, that "all mankind have a right to things that have not yet fallen into the possession of any one, and those things belong to the persons who first take possession of them. Where therefore a nation finds a country uninhabited, and without an owner, it may lawfully take possession of it, and after it has efficiently made known its will in this respect, it cannot be deprived of it by another nation." It follows from this argument, that the emigrants who founded the Malayan colonies, had an undoubted right to possess themselves of the desert countries which they found on the peninsula, and that having possession, and never having relinquished it, during a period of 660 years, they are, and must be considered, the rightful possessors of these countries at the present day.

Having fully established the rights of the Malays to colonize the peninsula, and having previously shewn that Quedah was the only state which ever acknowledged any degree of dependence upon Siam, after the dismemberment of the Malacca kingdom, of which it was a part, I shall now consider what constitutes a sovereign state, and the several degrees of submission or dependence known to us, as existing among different nations and states, which will enable us to draw a satisfactory conclusion respecting the relative situation of Siam and Quedah, which it is more particularly the object of the present paper to discuss. The celebrated Vattel says, in speaking of states bound by unequal alliance, "we

* Continued from p 157.

ought to account as sovereign states, those which have united themselves to another more powerful, by an unequal alliance, in which, as Aristotle says, to the more powerful is given more honor, and to the weaker more assistance. The conditions of these unequal alliances, may be infinitely varied. But whatever they are, provided the inferior ally secure to itself sovereignty, or the right of governing its own body, it ought to be considered as an independent state that keeps up an intercourse with others under the law of nations." Of states allied by treaties of protection, he remarks, "consequently a weak state, which, in order to provide for its safety, places itself under the protection of a more powerful one, and engages, in return, to perform several offices equivalent to that protection, without however divesting itself of the rights of Government and sovereignty, that state, I say, does not, on this account, cease to rank among the sovereigns who acknowledge no other law than that of nations." In regard to tributary states, he observes, "there occurs no greater difference with tributary states, for though the payment of tribute to a foreign power, does in some degree diminish the dignity of those states, from its being a confession of their weakness, yet it suffers their sovereignty to subsist entire. The custom of paying tribute was formerly very common, the weaker by that means purchasing of their more powerful neighbour, an exemption from oppression, or, at that price, securing his protection without ceasing to be sovereign." And of feudatory states, it is stated by the same author. "The Germanic nations introduced another custom, that of requiring homage from a state either vanquished, or too weak to make resistance. Sometimes even a Prince has given sovereignties in fee, and sovereigns have voluntarily rendered themselves feudatory to others. When the homage leaves independence and sovereign authority in the administration of the state, and only means certain duties to the Lord of the Fee, as some honorary acknowledgement, it does not prevent the state or the feudatory Prince being strictly sovereign. The King of Naples pays homage for his kingdom to the Pope, and is nevertheless reckoned among the principal sovereigns in Europe."

The original object no doubt of the Quedah State sending a Bunga Mas, or token of homage to Siam, after the custom once

had been established, was to secure the protection of its more powerful neighbour, and we shall now see the obligations of the protector as well as protected. "When a nation is not capable of preserving herself," says Vattel, "from insult or oppression, she may procure the protection of a more powerful state. If she obtain this by only engaging to perform certain articles, as to pay tribute in return for the safety obtained, to furnish her protector with troops and to embark in all his wars as a joint concern, but still reserving to herself the right of administering her own government, at pleasure, it is a simple treaty of protection that does not at all derogate from Sovereignty, and differs not from ordinary treaties of alliance, otherwise than as it creates a difference in the dignity of the contracting parties." And again, "if the more powerful nation should assume a greater authority over the weaker one, than the treaty or submission allows, the latter may consider the treaty as broken, and provide for its safety according to its discretion. If it were otherwise, the inferior nation would lose by a convention which it had only formed with a view to its safety, and if it were still bound by its engagements when its protector abuses them, and openly violates his own, the treaty would, to the weaker party, prove a downright deception." If then such privileges may be retained by a state voluntarily submitting to another, the mere tacit acknowledgement of homage implied by the transmission of a golden flower, (for history does not record the admission on the part of the Quedah of the right of the Siamese to any further concession) we cannot fail to regard the subjugation of Quedah as an unjustifiable usurpation.

In support of the opinion which I have here advanced, regarding the dependence of Quedah upon Siam, as implied from the transmission of a gold flower, it may be satisfactory to refer to the sentiments of Captain Light, and as he obtained the grant, he was the best qualified to form a judgment upon this question. In reply to the directions of the Supreme government that he would ascertain "whether the King of Quedah was the rightful Sovereign thereof," he thus writes, "it does not appear, either by writing or tradition, that Quedah was ever governed by the Siamese laws, or customs. There would have been some remains had there been any affinity between them. The people of

Quedah are Mahometans, their letters Arabic, and their language Java. The king originally from Menangkabau, in Sumatra; but as Quedah was very near Ligore, a Kingdom of Siam, they sent every year a gold and silver tree, as a token of homage to Ligore. This was done to preserve a good correspondence, for, at this period, the Simese were very rich and numerous, but no warriors, and a considerable trade was carried on between Ligore and Quedah. After the destruction of Siam, the King of Ava demanded the gold and silver tree, and received the token of homage from Quedah. Pia Tak drove away the Burmans, and built a new city at Siam; the King of Quedah sent the tree to Siam, and kept peace with both, paying homage sometimes to one and sometimes to the other, and often to both."

Between the years 1780 and 1786, we find the Bengal Government had turned its attention to endeavouring to secure an eligible post, in or near the Straits of Malacca, for the purpose of establishing a small settlement, for the promotion of the commerce of Western India, and the security of our traders passing to and from China and other quarters; and we are indebted to the troubles in which the Rajah of Quedah was involved, by the oppressions of Siam, for the settlement of Prince of Wales Island. Under the expectation of securing a powerful ally, and encouraged, no doubt, by promises of protection and support from the British Government, which Mr Light evidently pledged, the King of Quedah ceded the island of Pulo Pinang, by which he incurred the certainty of the almost entire abstraction of the foreign trade from his dominions, and an actual loss in revenue of 20,000 dollars annually. Being afterwards disappointed in the hopes of succour from the British Government, on which he had confidently relied, and oppressed by the numerous demands of Siam for vessels, men, and arms, which he assures the Superintendent were without precedent or example, and confident in his own strength, he determined to make an attempt to free himself from such thralldom and oppression, and while the Siamese were engaged in a distant war, made a sudden incursion into, and possessed himself of the provinces contiguous to his own state. He was however dissuaded from such an enterprize by the British resident, who advised him to reply to the Emperor of Siam's demand, that the distressed

state of the Quedah country could not afford such supplies, the wars between the Dutch and Malays having for several years prevented any foreign trade with Quedah, and that this year was attended with a scarcity; in the mean time, he was advised not to neglect providing for his own security. Mr Light also told him, that were he determined to put his projects into execution, of making an attack upon the Siamese provinces, "being the aggressor, he would put it out of the power of the Honorable Company having any excuse for making war against Siam." Having now brought down the history of the several states to the period when the British Government formed a settlement at Pinang, it may be useful to refer to the opinions of some persons, whose experience enabled them to describe the political relations of the several states at that time.

The most authentic accounts which are to be found of the political connexion which has subsisted between Ava and Siam and the other states in their vicinity are contained in the correspondence of some of the earlier Settlers at Pinang. Captain James Scott, a gentleman well known in this quarter, many years ago, as an eastern trader, and afterwards a merchant and planter at Pinang, resided some time at the Island of Junk Ceylon, at Quedah, and at Salangore, and from his long acquaintance and intercourse with the Malays, was well qualified to describe the countries which had so long been the scene of his mercantile operations. He submitted to the Supreme government a paper professing to convey "some idea of the political situation of the countries east of the Bay of Bengal," of which I shall here transcribe an extract, as necessary to a proper understanding of the political relations at the period.

"Arracan, Pegue and Siam formerly possessed the shores from Chittagong to Quedah. Some twenty years ago, the oppressions of government drove the merchants from frequenting the ports of Arracan, since which they have been little heard of. Pegue has lately been conquered, and is become a province of Ava. Siam formerly possessed from Martaban to Quedah, which last was tributary to them. Ava was little known to Europeans, previous to their some twenty five years ago over-running Siam; they then extirpated the Royal Family, the Capital of Juthia,

carried off immense numbers of the inhabitants, leaving that country, once so rich, a mere wild. The Siamese under a bold Usurper, called Pia Tack, drove home the Burmans, and recovered all they had overrun, except Martaban, Tavoy and Mergui, which they retain at this time. They have dwindled under Ava, to mere villages, from losing the exports of the western provinces of Siam, which have in some measure come to Salang. In 1778-9, Pia Tack conquered Camboja, Chia and Ligor, and overwhelmed the whole Peninsula; but in 1783 Camboja revolted. He sent an army against them under Pias Check and Sussin, two brothers, who having reduced Camboja, returned to Bankok, killed Pia Tack, and possessed themselves of the government, where they now jointly reign. In 1783, Ava made war on Arracan; the event is yet unsettled. Tonquin and Cochin China during the last ten years, have been depopulated by civil wars and the eruptions of some barbarous mountaineers, which attacked either party and plundered both. In 1783-4, the one competitor drove the other out, who retired to Siam for assistance. The successful one sent a French Missionary Bishop to Pondicherry to solicit the assistance of the French against Siam and the mountaineers. The Dutch had likewise an Agent there, who offered the assistance of Batavia. His negociation failed, and we heard he lost his life. In 1784-5, the Siamese sent an army of 15,000 men, and 150 prows and junks. The fleet by accident or treachery were surprised and taken, and only 5,000 men with their Generals reached Siam again. Ava has joined Cochin China and the French, and every thing is preparing on the opening of the dry season, to conquer Siam; and, from all accounts, the internal state of Siam is weak beyond conception; that bond of union which seems to cement large empires, is feeble under the two jarring usurpers, and in a few years will probably fall to pieces of itself, without a foreign concussion."

After Pinang had been occupied a short time, Captain Glass, the Commanding Officer of the troops, gives the following description of the several states of the peninsula, and their more powerful neighbours, which, though embracing other points foreign to the present subject of discussion, had better be preserved entire, as a satisfactory elucidation of the sentiments of those most conver-

sant with the subject in those days, of the connexion subsisting between the Malayan states, and the powerful Empires of Siam and Ava, as well as the policy which appeared proper to be pursued by the British government, in regulating their new establishment and connexions to the eastward.

“1st. The Empire of Ava, with whose southern provinces there will be a considerable communication. The haughty ferocity of this people and pretensions of their sovereigns, who treat all men as their slaves, prevent treaties of commerce being formed with them, or if formed, having any reliance thereon, because a compact supposes an equality, which cannot exist in the relation of master and slaves, it is immaterial whether the relation exists in fact, or in idea, the consequence is the same. From a small tribe called Purmaa, they have conquered Cossac to the northward, Pegue and Arracan to the southward, three independent states; they have likewise wrested the provinces of Martaban, Tavoy and Mergue from Siam; but while the Siamese can keep them employed, there is little to fear from them here; but should they be successful in the present contest with Siam, they may again adopt their wish, the reduction of the Malayan Peninsula. This is the only native power whose force we have to fear in open war.

“2nd. Is Jan Salang. This island is a distant and neglected province of the Empire of Siam, which in itself has no effective force to be dreaded.

“3rd. Is Quedah, which comprehends a sea coast of forty to fifty leagues, and the best cultivated part of the Malayan Peninsula. Its population exceeds 40,000. From its vicinity to this place, the plenty of provisions of all kinds which it produces, it deserves your Lordship's most pointed attention, being contiguous to the two potent Empires of Siam and Ava; to the former of which it is tributary, or more properly, pays homage, by sending yearly a flower of gold and another of silver, which, with presents, and an inoffensiveness in the people, has hitherto preserved them from the attempts of either. But the trifling conduct of the present king and his council, is likely to give occasion of offence to both, he will then fall a sacrifice to the successful. In giving this Island (Pinang) to the Company, the King of Quedah and

his Nobles could not have foreseen, what they now feel, a loss of trade and consequent revenue, and no reasoning will convince them, that an increased demand, and consequent increased price for the produce of their country, will in time prove an equivalent.

“The revenues of all the Malay Princes arise from the profits on a restrictive commerce in general, managed by a Malabar, who acquires influence in consequence of the command of cash, and generally expends a large part of the profits in support of this influence; free from these depredations, the revenues of Quedah amount to 100,000 rupees annually. This small sum, with the feudal obligations of his people, generally ill complied with and ineffective when collected, cannot cope with either Siam or Ava in force or resources, but to allow this country to become a province to either, would render our supply at this place dependant on the nod of a despot. By securing the independence of this country, the Honorable Company would acquire a dependant and useful Ally, secure the supplies at this settlement, until the island can supply itself, and virtually in the end, as our influence increases, an accession of about 40,000 subjects.

“4th. Is Perak, which borders on Quedah, and extends about fifty leagues inland; near Perak river is well cultivated, and it contains about 30,000 people, exports annually 5,000 piculs of tin, which is delivered to the Dutch at 32 Spanish dollars per Bahar of 428 lbs. The Dutch have a small stockade fort, with about fifty people there to prevent the natives from carrying the tin to other markets; but with all their precautions, the quantity they used to receive, is greatly lessened since the settlement of this Island. The people of Perak are in general very ignorant, their revenues so small and their residence so far inland, that little is to be feared from their animosity, and less to be hoped from their friendship while connected with the Dutch.

“5th. Salengore. This country runs to Cape Rachado, but so much reduced by the late war with the Dutch, that the population of forty leagues of a very fine country, does not, I am credibly informed, exceed 1,000 or 1,500 people—The king, I understand, wishes to give the English Company the sovereignty of his country.

"6th. Rambow, an inland country and while the Dutch possess Rhio, they claim the dominion of Johore, which takes in the whole of that side of the peninsula.

"On the eastern side are Pahang and Tringano, the population of which is not great. Patani has lately been reduced to a province of Siam.

"From this view of the east side of the Bay of Bengal and Malay Peninsula, it appears, there are only three powers, whose effective force requires attention; all the others will soon consider our nod as law. The three are Ava, Siam and the Dutch. As the plans of the two first are the result of ignorance and caprice, in the whimsical despot, it is hard to conclude any thing by indication &c."

A month after taking possession of Pinang, viz, 12th September 1786, Captain Light, the Superintendent, gives the following information to the Supreme government of India. "The Burmans divided their army into several parties, and ravaged at the same time the countries of upper and lower Siam, Legore, Chia, Chompow, Mandelong, and Bancy, burning and destroying and massacring without compassion or exception. On a sudden, their army disappeared, but whether by the Siamese, or occasioned by a dissension among the generals, is uncertain, as both are alleged. The Siamese recovered the places they had lost, and the king's brother, Sooram, who came to Legore with a small army, had no sooner put to death the 2,000 Burmans left there as a guard, than they resolved to call to account all the neighbouring states who had not given the Siamese aid against the Burmans. He sent for the chiefs of Patani, the Kings of Quedah and Tringano, none of whom choosing to enter the Court of so desperate a tyrant, sent their several excuses, with presents, which he returned, and began immediately upon Porgit. This place was deemed impregnable. It was surrounded by seven thick rows of bamboos; within the bamboos, was an exceeding wide and deep canal, and within the canal, a strong rampart of earth, on which was mounted a number of large cannon. The area within these walls contained all the inhabitants, cattle and grain; their strength amounted to near 4,000 fighting men. The chief had rendered himself obnoxious

to his people from tyrannizing. This and their confidence of situation, gave the Siamese an easy conquest. The reduction of this place has made every one tremble for his safety, and though the King of Quedah has avoided the storm for the present by submission, yet there is no dependance upon the word of a man, who has no moral restraint whatever, but as policy will prevent his entering Quedah while he can procure supplies from it, until the season for cutting paddy, it is possible some accident may arise to destroy his schemes."

We may gather from the foregoing details, that for some time prior to, and about the period the British Government took possession of Prince of Wales Island, there had been and was, an almost incessant warfare between the States of Ava and Siam, and a contest for preponderating influence over the minor states in their neighbourhood, which involved these inferior powers in continual distress, and imposed upon them the necessity, either of affording supplies to the utmost extent of their limited means, or of being entirely subdued by their more powerful and overbearing neighbours. Mr Scott admits that "Siam formerly possessed from Martaban to Quedah; which last was tributary to them." Captain Glass states, that Quedah pays homage to Siam by sending yearly a flower of gold and another of silver, "which with presents and an inoffensiveness in the people, has hitherto preserved them;" and Captain Light says, the King had "avoided the storm for the present by submission," yet there is no mention that Quedah was immediately under the controul of Siam, or that it did more than merely send a token of homage, or acknowledgement of inferiority to a superior power. The king of Quedah, as an independent sovereign, being requested to permit a British settlement to be formed at Pinang, thus submits his proposals to the Governor General of Bengal, as the conditions of such cession.

"Whereas Captain Light, Dewa Raja, came here and informed me that the Rajah of Bengal ordered him to request Pulo Pinang from me, to make an English settlement, where the Agents of the Company might reside, for the purpose of trading and building ships of war to protect the island and to cruize at sea, so that if any enemies of ours from the East or the West should come to attack us, the Company would regard them as enemies also and

fight them, and all the expences of such wars shall be borne by the Company. All ships, junks or prows, large and small, which come from the East or the West and wish to enter the Quedah river to trade, shall not be molested or obstructed, in any way, by the Company, but all persons desirous of coming to trade with us shall be allowed to do as they please; and at Pulo Pinang the same.

"The articles of opium, tin and rattans are monopolies of our own, and the rivers Mooda, Prye, and Krian are the places from whence tin, rattans, canes, besides other articles are obtained. When the Company's people, therefore, shall reside at Pulo Pinang, I shall lose the benefit of this monopoly, and I request the Captain will explain this to the Governor General and beg, as a compensation for my losses, 30,000 dollars a year, to be paid annually to me as long as the Company reside at Pulo Pinang. I shall permit the free export of all sorts of provisions and timber for ship-building.

"Moreover, if any of the agents of the Company make loans or advances to any of the Nobles, Chiefs or Rajahs of the Quedah country, the Company shall not hold me responsible for any such advances. Should any one in this country become my enemy, even my own children, all such shall be considered as enemies also of the Company; the Company shall not alter their engagements of alliance, so long as the heavenly bodies continue to perform their revolutions; and when any enemies attack us from the interior, they also shall be considered as enemies of the Company. I request from the Company, men and powder, shot, arms large and small, also money for the purposes of carrying on the war, and when the business is settled, I will repay the advances; should these propositions be considered proper and acceptable to the Governor General, he may send a confidential agent to Pulo Pinang to reside; but if the Governor General does not approve of the terms and conditions of this engagement, let him not be offended with me. Such are my wishes to be made known to the Company, and this treaty must be faithfully adhered to, till the most remote times.

Written on Tuesday, 24th Shawal, 1199."

Here no mention is made of the Rajah of Quedah being tributary

to any other state, and the offer is accepted from him as an independent King. If we considered him a tributary Prince, why accept such a grant from him?

We now come to the most delicate branch of the discussion, but I shall have no difficulty in shewing, that the policy of the British Government to give protection to the Quedah state is no less manifest, than its moral obligation to do so. It would appear that prior to Captain Light's negotiations with the Rajah of Quedah, and his obtaining a grant of the island of Pinang, an ineffectual application had been made, for the same purpose, under the orders of the Supreme Government; a proof that the acquisition of a settlement in this quarter, was considered important and useful. Mr Light thus writes, "as I understand this Government had made application to the King of Quedah for the island of Pinang without success, with the consent of the Governor General, I made use of the influence and interest I had with the King and Ministry, to procure a grant of the island of Pinang to the Honorable Company. The King of Quedah who now solicits your friendship and alliance, has sent by me a grant of the island of Pinang and has annexed to the grant some requests."

The propositions made by the king of Quedah as the conditions of the cession, were separately remarked upon by Mr Light, and he makes the following observations upon the first article, which stipulated for assistance and protection in arms and men. "This article comprehends the principal and almost only reason why the King wishes an alliance with the Honorable Company, and in the treaty must be worded with caution, so as to distinguish between an enemy endeavouring or aiming at his destruction or the kingdom, and one who may simply fall into displeasure with either the King or his Ministers."

The interpretation of this is not difficult, and it appears to be very certain, that Mr Light gave assurances, that such a close and intimate alliance would be formed between the king of Quedah and the British Government, by the cession of Pulo Pinang, as would ensure his safety, and the independence of his kingdom. The Supreme Government, in accepting the grant, acquaints Mr Light that "It has been resolved to accept the King of Quedah's offer to the Company of the harbour and island of Pinang. This

Government will always keep an armed vessel stationed to guard the island of Pinang, and the coast adjacent belonging to the king of Quedah. The Governor General and Council, on the part of the English India Company, will take care that the king of Quedah shall not be a sufferer by an English settlement being formed on the island of Pinang."

That he has been a sufferer, there is no question; and if, as it is alleged by many, the Emperor of Siam was displeased because he gave Pinang to the English, and had he possessed the means, would have visited him with severe punishment at the time, (though by the bye, the records shew that Siam was, at the period coeval with the formation of the settlement of Pinang, in a state fully capable of subduing the Quedah country,—her arms having been victorious over some of the Malay states on the other side of the peninsula, and there is little doubt the consideration of the alliance of the king of Quedah with the British Government, and the probability of their aiding him, prevented such an attempt) we are the more bound, on these considerations, to defend the Quedah country from invasion. But if there were any feelings of irritation at that time on the part of the Siamese, the long interval which has elapsed, might be supposed sufficient to have done away with them. We engaged, it seems, to have an armed vessel to "defend the coast of Quedah at all times." It must be recollected however, that Quedah was taken by an attack from seaward, the fleet which captured it having been equipped at Traang, on this side the peninsula. Sir John Macpherson, then Governor General, in accepting the island, replies to the King's letter, and makes no objection to the proposed conditions, which he submits to England for approval; the King of course naturally expecting, from the promises of Captain Light, and the tacit assent of the Governor General, that they would all be approved of by the Honorable Company. "Your friendly letter containing a grant of Pulo Pinang to the Honorable Company, was delivered to me by Captain Francis Light, the 6th February 1786. Captain Light also made known to me the requests of my Friend and Brother, which I, having the interest and friendship of my noble friend at heart, have already transmitted to England for the approbation of the king of England, and the Honorable English Company. I have

likewise ordered a ship of war for the defence of the island, and protection of the coast of Quedah." This last paragraph implies clearly, that it was intended to secure Quedah against an invasion or attack from seaward. Not more than a month after Pinang was occupied, Mr Light writes, as I have before noticed; "The king of Quedah has reason to be afraid of such a tyrant (the king of Siam) and hopes to secure himself by an alliance with the Honorable Company."

This was a very natural expectation, and we are, no doubt, indebted to the troubles which the King of Quedah experienced from the Burmahs and Siamese, for our Settlement of Pinang. He hoped to secure the protection of the English. It is acknowledged by Mr Light, that the king of Quedah sent a token of homage to Ava, as well to Siam, or in other words, that he was oppressed by two contending powers, and to get rid of his difficulties, he formed an alliance with the English, by giving as he thought a *quid pro quo* in the cession of an island eligibly situated, and which had been solicited by the Supreme Government. This was accepted from him as a sovereign Prince, and we are constrained, therefore, to view him and his heirs as the sovereigns of the Quedah country, otherwise we contend against our own right to hold the island, except by the sufferance of the Siamese. We know (at least Mr Light appears to have been aware of) the motives which induced the king to give Pinang to the English. We accepted it with such a knowledge and should be guilty of great inconsistency to deny it. It must be always borne in recollection also, in weighing the merits of this important question, that there was no stipulated payment, at the time of the Grant, for the loss the king would sustain, by the abstraction of the trade from his dominions. His compliance with Captain Light's request originated, not in pecuniary considerations, but in the expectation of gaining a powerful ally. But, if more proof were wanting, that Mr Light gave the king assurances of protection, the following paragraph of his letter to the Governor General, dated 5th October 1786, will put the matter beyond dispute. "I returned for answer" (to a letter the king addressed to him concerning an expected invasion from Siam) "that his best policy is to have as little communication as possible" (alluding to the Burmahs and

Siamese) "but to put his country in a state of defence, and that while the English are here they will assist him if distressed."

Who that reads this will say, that Mr Light considered Quedah dependent on Siam? He regards it certainly as a dangerous and powerful neighbour; but would he have leagued with Quedah and told the king, "the English while here, will assist you if distressed," if he had viewed it as a tributary state? No arguments can be of any avail as to what were our original intentions, and what was the king's conviction, after such an unequivocal admission as this. Mr Light appears to have been fully aware of the value of the acquisition. In this letter of 15th September 1786, he says—"The excellency of this situation for Commercial exchange, is evident from the united opinions of every person who has been here, Europeans and Indians. From the heart burning of the Dutch, and from the jealousy of the people of Quedah, who already foresee they must be dependent upon this place for any foreign trade, &c." We take away from Quedah its valuable trade,—we withhold the only return stipulated by the King, in the first instance, namely, protection and assistance, (for even at this time, there appears to have been no pecuniary compensation granted) and we wonder that the people of Quedah should be jealous of us. I have omitted to notice the opinion of J. Price, as to whom the island belonged, which is contained in a letter to the Governor General, dated 23rd February, 1786. "I prefer it (Pinang) to the Negrais, as it is an island sufficiently detached from the continent to prevent surprise or even attack from the natives, and being a free gift from the acknowledged and rightful owner, can never give cause for war."

It may appear superfluous to multiply proofs that Quedah was an independent kingdom at the period of our forming the settlement of Pinang, but if further evidence were wanting, the opinion of the highest authority in India at the time, may be produced in evidence. The Governor General records his sentiments in a minute, as follows:—"The Grant of Pinang seems, in fact, to have been procured by the influence of the principal officer of the king of Quedah, with a view to secure himself a place of retreat against his numerous enemies, and the ostensible object of the King himself in making the Grant, originated in the idea of sup-

porting his own independence by the protection of the English, and his attachment to us will either be strengthened or changed into animosity, as that protection is granted or withheld. This protection however cannot be effectually given, without involving us in disputes with the Burmahs or Siamese, the latter of whom are the most powerful."

Throughout his proceedings, we trace the anxiety of Mr Light to obtain the sanction of the Supreme Government, for effectual aid to the king of Quedah, which he had no doubt promised, and we find him still holding out expectations. He thus notices (in his Diary) an interview with the king. "The king received me without any state, and seemed much troubled; he told me there was a passage in the letter (from the Governor General) he did not understand. It seemed to threaten him if he did not comply with the Governor General's request; he asked me if I had a copy. I told him it must be a mistake in the translation, and what the translator had taken for a menace to him, was meant to his enemies; he said this was probable, and ordered three people each to make a separate translation. Yesterday the king of Quedah sent the Laksamana to enquire if I would consent to the people of Patani settling opposite to Pinang, and assist him, if attacked by the Siamese," and again "this day, the king of Quedah sent his brother, the Laksamana with a letter; the purport as follows; 'we have received intelligence that Ava has mustered his army to attack Siam, and arrived at the borders. We have also received a letter from the king of Siam, commanding us to defend the island of Junk Ceylon against the Burmahs, who are expected with a fleet of prows and ships. We have sent our brother, the Laksamana. to accompany our friend to us, that we may profit by his counsel, and consider what is best to be done for the safety of our country'". The king of Quedah would not willingly obey the orders of the king of Siam and applied to us for aid, to which he considered himself entitled.. The more I consider Captain Light's proceedings, the more am I convinced of the unkindness of the conduct towards the King of Quedah. It has been seen, that Captain Light acknowledged he had assured the king he would support him, if in distress; that he told him the Governor General menaced his enemies;

and that he received the island on condition of protection ; and we find him writing to the Supreme Government on the 17th May 1787, nearly a year after we had possession of the island ; “ The Honorable Board were pleased to mention in their instructions, that they were willing to give a pecuniary consideration to the king of Quedah. Soon after the Ravensworth sailed, the king became very pressing, and we found for a considerable time, a difficulty in procuring provisions. I wrote to the king it was the intention of government to make him a compensation for the island, and to keep him in good humour I trusted him with 20 chests of opium, at 250 dollars per chest, since which we have been plentifully supplied with provisions. There is a necessity for coming to some terms with the king of Quedah while the fears of the Siamese and Burmahs are upon him ; and I have reason to believe nothing will be acceptable without government promising the king protection. This place will be subject to many inconveniences without such an alliance as will oblige the king to furnish the Settlement at all times with provisions ; and preventing other European nations from settling in any other part of his country. Should the Siamese be permitted to take possession of his country, we shall not only find an insolent and troublesome neighbour, but be under the necessity of assisting them in their wars, or to go to war with them ourselves. I humbly conceive that it will be easier, and attended with less expence to the Honorable Company, to declare at once the king of Quedah under our protection ; little else than the name of the Company will be wanted ; the longer it is delayed, the greater will appear the consequence of the island, and the more difficulty there will be in fixing a Settlement. The Danes, the Dutch, and the French have solicited permission to have only a house in Quedah ; either of them will promise much, and should the king consider himself aggrieved or disappointed by the English, he may in despair seek for other alliance.”

The bias upon Mr Light's mind is too obvious to be mistaken, and it is equally clear he held out expectations of assistance from the English, 'ere the British Standard was hoisted at Pinang ; otherwise, as he remarks, the King would have sought an alliance with some other European power, who would have made uncon-

ditional promises. Why also, if the island was a voluntary Grant of the King, as it is termed, (though this appears strange, when we consider that the king of Quedah had given a decided refusal to a former application on behalf of the Supreme Government) should Mr Light state "the King was pressing for a settlement," and why should he support his claims? It does appear, however, that the Supreme Government objected to interfere, but why was Mr Light permitted to take possession, without coming to a clear explanation of our intentions in the first instance? The same paper which contained the Grant contained also the condition, namely, protection; and the Governor General writes, "I have ordered a Man-of-war to guard Pulo Pinang and the coast of Quedah," inferring ostensibly, at least, that the protection sought for, would be granted.

Captain Glass, the Commanding Officer of the troops at the time, and a discreet, sensible man by all accounts, gives his sentiments as to the propriety of effectual aid being afforded to the Rajah of Quedah, and insinuates, as plainly as his respect and deference for his superiors would admit of, in an official communication, that there had been some evasion. He remarks, "This feeling," (alluding to the abstraction of the trade from Quedah, and discontent of the Quedah people) "and the evasive answers Mr Light has been obliged to give them to many requisitions, has impressed them with the idea, that they have been deceived, and as no idea tends more to estrange their affections &c." They find themselves deceived after a year's trial. It may be argued perhaps, why did the King, in making a treaty afterwards, not insist upon our protection? The fact was, he saw we were in possession, and he knew it was in vain for him to attempt to expel the English. He therefore prudently made the best bargain he could, by accepting money; but still this is no justification of the want of good faith, evinced on the occasion. It was impossible that they could be so blind as to avoid foreseeing a great loss in their trade by the settlement of Pinang, but, as I have already observed, they were content to sacrifice that advantage for the greater security against the encroachments of the Siamese which they hoped to obtain by an alliance with the English.

In Captain Light's account of Junk Ceylon, he says, "The

king of Quedah claims the dominions of these seas (that is between Salang and Mergui) and grants a license for collecting the bird's nests and sea slug to some of his officers for which he receives about 12 or 1,500 dollars per annum. After the loss of Siam (alluding to the conquest of that country by the Burmahs) the Malays got possession of the Island (Junk Ceylon) and the Laksamana of Quedah maintained an absolute authority, treating the Siamese as slaves, until an accident inspired the Islanders with the idea of liberating themselves, which they performed in one night. The Laksamana constantly regretted the loss of this island, and offered me 8,000 men, when it was proposed by Mr Hastings to establish a Settlement there." It is far from probable, that the king of Quedah would have been allowed to reap the advantages of so lucrative a trade, or to have laid claim to such extensive authority, if he had, in these days, been absolutely dependent on Siam.

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THREE MONTHS IN CAMBODIA.

BY A MADRAS OFFICER.

My brother being agent for a Singapore Mercantile firm in the trade they carry on with Cambodia, and having resided there for some years and made himself acquainted with the language &c., I thought I could not have a better opportunity of seeing something of a country so little known to Europeans, than by accompanying him on one of his trading expeditions thither. The following are a few notes taken during my trip and sojourn of three months in the land of "Srok Kumai," as Cambodia is termed by its inhabitants.

On Saturday the 8th of April 1854, three of us, my brother, Mr V. and myself embarked on board the barque "Polka," Captain Welch, bound to Campoot. The vessel belongs to a Chinese firm in Singapore, who for the last few years have regularly traded with Cambodia. Our party consisted of a

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Chinese Interpreter, called Baba Kee, and two servants, one a Madras boy, and the other a Malacca Portuguese. We weighed anchor at 11 o'clock A. M., and aided by a light fair breeze, soon sighted Johore hill, which bore from us N. by E. and Bantam Point S. S. E. At 8 o'clock on Sunday morning we had Pedro Branca distant from us about 8 miles, bearing E. by S. and at 12 o'clock P. M. Romania Islands, bearing W. S. W. On Monday at daybreak, we sighted Pulo Aor, bearing N. N. W. and distant about 16 miles, and at noon Pulo Timaon bore W., the latitude by observation being $2^{\circ} 50''$ N. From this time till we sighted the Brother and Sister, which we did on Saturday afternoon, nothing occurred to break the monotony of our voyage except passing a steamer, steering south, on the evening of Tuesday the 11th. On Sunday the 16th at 7 o'clock A. M. we sighted Pulo Obi and the large island of Kuthrall and at noon dropped anchor in Campoot roads, having run 550 miles in 9 days.

A stranger anchoring in the harbour for the first time, would never imagine that a town was anywhere in its immediate vicinity, as no signs of life are perceptible from the sea. The harbour itself is a good one, and capable of accommodating any number of vessels. It is in latitude $10^{\circ} 31'$ N. and longitude $6^{\text{h.}} 56^{\text{m.}} 45 \text{ sec. E.}$ of Greenwich, mean time, being land-locked on both sides, the large island of Kuthrall or Kho-dud, extending on the left, (its extreme northern headland called "Gunong Kwalla," bearing from the anchorage $S. 61^{\circ} 55' W.$) and several small Islets on the right, including Temple Island, (bearing $S. 56^{\circ} 15' E.$ and which is as near as possible 100 feet in height). Immediately opposite the anchorage, bearing due north from it, frown two singularly shaped mountains called the "Paps," which are covered with vegetation to the very top and form a striking object from the sea, their elevation being about 480 feet. At the back of these hills trending north-westerly, are a range of mountains similarly clothed with the most luxuriant vegetation to their summits, their ridges being serrated, but their peaks not differing much in apparent height. These mountains the Cambodians call "Teglian" or the abode of the destroyer. They have many traditions connected with them, and sacrifices are from time to time offered to the spirits who are believed to inhabit them. In modern charts, these

series of mountains have been styled the "Elephant Range." Cape mountains, a similar group on the right, bear from the anchorage S. 78° 45' E. It is a pity the water shoals so much on approaching the harbour, the navigation in consequence being rendered very intricate. From 3 to 3½ fathoms, being about the soundings for a considerable distance before the anchorage is reached, vessels of the least draught of water are obliged to anchor upwards of 2½ miles from the mouth of the river. Midway between the anchoring ground and the shore is a bar, on which, at low tide, there is not more than 2 feet of water. This makes the loading of vessels very slow, as cargo boats can only come out of the river at high tide. The river itself is deep and tolerably broad, it is edged with mangrove swamps on both sides till very near the town of Campoot, which lies on the left bank, about 2 miles from its mouth. The shore of the country, as far as the eye can reach, is also fringed with Rhizophoræ, or mangrove scrub and at low tide an extensive mud flat is the only apology for a beach.

Soon after we anchored, the Chinese Supercargo of the vessel, accompanied by his family, consisting of five ladies, went on shore. His wife, mother and sister-in-law, composed the five, they were all of true Chinese descent, and had very lately arrived from China, being induced to leave their native country in consequence of the disturbances which had arisen there. The ladies were great curiosities in Singapore when they arrived, as they were among the first of the small footed gentry that had hitherto honored Singapore with their presence. These celestial charmers had stowed themselves away in the long boat during our voyage, and they seemed to have a great objection to shew themselves to the Europeans on board, as they never stirred from their snug domicile from the day they entered it, till they prepared to get into the boat alongside to take them ashore at Campoot, a work by the by, of no small danger and difficulty to them, as their small feet, or "golden lilies" as they are termed by the Chinese, being only about 3 inches in length, and encased in a shoe with a heel nearly as long as the foot, seemed scarcely sufficient to support them when standing. However by the assistance of a few men they managed to get dropped into the boat, more like bags of rice than anything else. These ladies were all most beautifully dressed,

being clothed in silks of the richest colours and their hair arranged with the help of pins and artificial flowers, about a foot high and spread out like a fan. Our interpreter Baba Kee, accompanied the Chinese supercargo on shore to get for us a large boat for ourselves and luggage. At 7 o'clock the next morning (Monday) Baba Kee returned to the ship with two boats, which after breakfast we loaded with our things and started for Campoot. We had much trouble in getting over the bar, as the tide was then low and our boats heavy; however, by all getting out, taking off shoes and stockings and tucking up our trowsers, we succeeded by dint of pushing and dragging in getting our crafts into deeper water; once into the river we had no further trouble as the current was setting upwards and we soon reached our destination. We landed on the right side of the river immediately opposite the town of Campoot. Here the King of Cambodia had ordered a house or rather two houses to be constructed for Europeans; this he had done at the request of Mr A. who had mercantile transactions with his Majesty for some years previously and who had represented to the King, the inconveniences his agent (my brother) had sustained, by having no place to live in or godowns to store produce &c.

These houses are situated on the brink of the river, at right angles with it, the two being immediately opposite one another at a distance of about twenty-five paces, and between them, at the sides furthest off from the river, a cook room or kitchen is built, so that the whole forms three sides of a square. Each house is in the shape of a parallelogram or rectangle (dimensions 80 feet in length by 25 in breadth) divided into three rooms above, with the same number of godowns below, the habitable part is elevated about 10 feet from the ground. A long verandah, about 8 feet in breadth, stretches along the front of the upper rooms in each house; at one end of the verandahs are stairs or rather substantial ladders and there is a communication between both houses by means of a gallery supported on posts from the end of one verandah to that of the opposite building. The rooms themselves are lofty and well lighted by means of two windows in each apartment. These houses rest on brick walls, the upper part is solely composed

of lath and plaster but the weight of the roof is supported by immense posts and cross beams, at an interval of about ten feet from each other. The roofs are tiled and calculated to last for at least fifty years, for each tile is separately fastened down with mortar before another is laid over it, the whole thus forming a solid mass. The only roof in the Straits of Malacca I have ever seen similarly constructed, is that of the stadt-house at Malacca. The floors of these buildings are planked, roughly it is true, as the planks are not planed and joined by bevelled edges together, but at the same time they are very substantial, each plank being about two inches thick and 40 feet in length, so that a couple extend the whole length of the buildings. The carpenters, sawyers and bricklayer's tools used in the erection of these houses, were commissioned by the King from Singapore, and their use &c. taught to the Cambodians, by a couple of Chinese who had resided for some time in the Straits. The tiles also were sent from Singapore, at the expence of the King. The houses are certainly the best in Cambodia. The King himself at Oodong, the capital, does not live in such a good one. When we arrived they were not quite completed. We were told it took a year to erect them, the whole having been done by means of forced labour. The Governor of Campoot having been compelled to furnish a body of men, these poor fellows got no remuneration, and had even to provide their own food. The King sent a Minister from Oodong to reside at Campoot to superintend the work and to see it properly done. This man rejoices in the euphonious title of *Andrön Sennaär*, he lives in a small hut close to the house, and seems to have great authority. Much respect is paid to him by the people of the town, being always addressed as *Lök*, or *My Lord*.

As soon as we had arranged our things in our new abode, we crossed the river and paid a ceremonial visit to Sinky, the Lieutenant-Governor, who is styled *Bandar Thoam*. This personage is of Chinese descent, and has all the features and characteristics of the Mongolian race, wearing his hair in a tail wound round his head, differing in this respect from the majority of his nation who are born and brought up in Cambodia, and who, like the true Cambodians, shave their heads, only leaving a short tuft

on the top of the skull, the hair being jet-black, stiff and coarse, almost bristly. Sinky does not keep up much state, he lives in a very poor house, built you may say on the river, and elevated on piles a foot or two above it. We found him squatting, half naked, on a large wooden platform, with several men sitting below him on the floor, which is composed of split nibongs. His house appeared to be divided into two parts, that in front being appropriated to business and receiving people, and that behind for his women, of whom he has about a dozen. He received us very graciously and immediately recognized my brother, who, of course, was well known to him; he offered us tea and after a short conversation carried on between him and our interpreter, we took leave of him, and then proceeded to Bombai, a village about 1½ miles up the river, and the place where the Governor resides. Bombai is a much smaller town than Campoot; though I have been informed, that since the last few years, in consequence of the great increase of trade at Campoot, many Chinese have settled at Bombai, which is now rapidly rising into importance, having two or three rows of streets and a bazar, &c. It, like Campoot, is situated immediately on the river. On landing we went to the Governor's house, but were disappointed to hear he was out. We took a cursory glimpse of the inside of this functionary's abode. It could not boast of much, but was apparently better constructed and more commodious than that of his subordinate Sinky, having lamps hung up to the ceilings, and various articles of Japan and Chinese manufacture scattered about; the part appropriated to business, &c., had a large platform raised about two feet from the ground, and extending the whole length of the back of the room. This platform was evidently the seat of honour, being covered with mats, &c. Having left word with the Governor's people, to inform him when he arrived of our visit, we proceeded to the residence of a Chinese merchant called Chinchoo Choow, with whom C. had some business. In passing through the bazar we were informed the Governor was in a house close by and wished to see us, to our great astonishment we found him in a barber's shop, undergoing that very necessary tonsorial operation in Cambodia of shaving the head. He did not seem to care much for our

having caught him in such an undignified position, but conversed with us, with the aid of our interpreter for a few minutes; asked who Mr V. and myself were, the object of our visit to the country, &c., and finally invited us to his house the next evening. We told him we wanted to go up to Oodong to see the King, to whom we wished first to write to inform him of our arrival, and to request he would send down elephants for us. The Governor replied, very well, he would send over to our house one of his clerks to write what we would dictate; and that he would forward it without delay to the King. Having made our salams to his excellency, who by the by is styled according to Cambodian etiquette "Chuwei Srök" literally "head of the country," we proceeded on our way to Chinchoo Choow whom I have mentioned before. This individual is one of the principal Chinese merchants of the place and is son-in-law to the Governor, and of course a person of importance; he received us very civilly, offered sweetmeats and tea and promised to come and see us the next morning. It being now late in the evening we wished him good bye, got into our boat and returned to our house. The next morning according to his promise Chinchoo Choow accompanied by Sinky, the Lieutenant-Governor, paid us a visit, but it seemed the astute followers of Confucius came to make a double job of it and had an eye to business as well as to politeness, as after a little preliminary chit chat, they commenced by asking what C's merchandize consisted of and by proposing to purchase between them his whole stock. Chinese bargains are never completed without a great deal of jabbering and finesse; however, the celestials found C. inflexible in his prices, and after three or four hours incessant talking, they finally agreed to his terms and carried off the goods; first signing and affixing their chops with all due formality to a paper promising to deliver the produce of the country in barter for the goods within 45 days, under penalty of defraying the demurrage of the chartered vessel, should the above time be exceeded. As soon as these worthies went away, the Governor's clerk came to write the letter to the King. Letter writing in Cambodia is a work that requires much consideration, even forming the characters of one page takes up as much time amongst

them as would suffice with us to write six. Our Cambodian scribe first produced his common place book, which seemed to be made of a very coarse thick kind of paper smeared over with some substance like black paint, which when dry, was written on with a pencil formed of a kind of white earth not unlike French chalk ; the marks made by this pencil, could be easily rubbed out with the finger, so that this prepared paper with care would last any length of time, and answers all the purposes of a slate. In his common place book, the clerk first entered down word for word what our interpreter told him. When our dictation was over he began to embellish the style &c, according to the most approved forms of Cambodian correspondence. This done he read over his composition, and asked the interpreter if what he had written included the substance of what we wished to say ; our approval having been obtained, he then asked for a large sheet of Europe paper which we gave him, this he folded lengthways so that the whole two pages were divided into equal folds or creases of about an inch from each other, these folds served as lines for him to write on; his pen was made of a piece of tin plate doubled up, its shape was exactly that of a small table knife, cut off to an angle at the point. The Cambodians always use Indian ink which is rubbed down with water on a stone ; when the tin pen I have described above is worked about in the semi-fluid composition till a sufficient quantity is collected, they then begin writing with the point of the angle, the part corresponding with the edge of the knife being uppermost. Our scribe having finished his fair copy it only remained to affix C's signature and chop which the King had previously presented him with. The letter was then inserted into an envelope directed in Cambodian to the King's Prime Minister who is called Lök Chunda and sent to the Governor, to be forwarded without delay; we were told it would take about 12 days before the elephants we had asked for in the letter to the King could arrive from Oodong. This business over and C's merchandize disposed of, we had plenty of leisure time on our hands. Flocks of wild duck having been observed continually flying about and swimming on the river, we determined to go out and have a day's sport,. We found lots of birds and soon returned with several brace of widgeon and teal. On exploring

the country at the back of our house, we found the two mountains I have mentioned before as being called the "Paps" to be about three miles from the house and close to the river. We found a small lake at the foot of these hills swarming with large grey duck but could not succeed in getting a shot at them as they were very wild and always kept at the opposite side. Returning we met a Cambodian going to a small village near the foot of the Paps, from him we asked our way back, as we were afraid we should miss the same track we had come by; this man very civilly volunteered to be our guide. I was surprised at his good nature as he stipulated for no reward, and he had at least $2\frac{1}{2}$ miles to go back with us and then return the same distance to the spot where we first met him. I could not help contrasting the politeness of this untutored child of nature with the incivility and sordid disposition generally met with amongst the natives of the Malayan Peninsula, where the first question is always "what will you give"? Half way back we met another Cambodian with three or four bamboos of palm toddy; being very thirsty after our long walk, we asked for some telling him if he would call at our house any day he would get paid, as we had nothing with us at the time, he very readily proffered his toddy and said he wanted no payment. We returned to our house about midday, very tired but much pleased with our day's sport; we of course did not allow our guide to return to his village without duly recompensing him for his trouble, he was profuse in his acknowledgements and did not seem as if he expected anything.

The next day we received a visit from a very intelligent Malay called Tuanku Tay, he was well known to C. and a great favorite of his. This man trades largely in raw silk, ivory, gambouge and sticklac; he is much respected in Cambodia for his probity, and is always employed by the king as his supercargo, when his Majesty's junks are sent down to Singapore to sell the produce of the country which the king yearly receives as tribute. This Malay informed C. that the king had stored up a quantity of rice in his godowns at Campoot, which was intended to be very soon sent to Singapore, and that he was only waiting for final instructions from the king to be off. He recommended C. to go up to Oodong as soon as possible and make an offer to purchase the

whole, saying he thought it very likely the king would be glad to sell it at once, as several reports had reached Campoot that many pirates had been seen hovering about Pulo Obi and its vicinity and that three or four trading junks had been taken by them, that these reports would be sure to reach the king, who would naturally be afraid to send his junks this year. This intelligence made C. determine not to wait for the elephants we had written for to the king, but start at once in carts for Oodong, so as to lose no time, thinking it probable we should meet the elephants on the road. Mr V. and myself agreed to C's proposition that we should accompany him, we all therefore the same evening went to Bombai to see the governor, and to request him to furnish us with carts and men. We reached Bombai at dusk and were lucky enough to find his excellency at home, he received us with much politeness and offered us tea &c. We then informed him of the purport of our visit; he seemed to be much surprised at our anxiety to be off so soon, but after starting many objections we at last made him promise to have the requisite number of carts and men ready at Bombai on the morning of the 2nd day. Having taken leave of the governor we prepared to return to Campoot, but found this was a task of no small difficulty as it was pitch dark, so that nothing could be perceived on the river, added to which the current being against us our progress was very slow, indeed we were obliged to row the boat ourselves, as we could not get men at Bombai to take us back. After many laughable mishaps, such as running foul of other boats and occasionally sticking on the banks at each side of us, we got home much fatigued; however a good night's rest soon put us all to rights and the following day was spent in packing up and preparing for our journey. The next morning, Monday the 24th, at 10 A. M., we left our house at Campoot for Bombai. Unfortunately our boat was too small for ourselves and luggage, but as no other was to be got, we were obliged to take great care in loading it and perching ourselves on the top of our boxes, &c. The least motion of the body invariably threw our cranky bark on her beam ends, so that it was no easy task to use the oars. I shall never forget the terror of our Interpreter, Baba Kee, who fully expected we should go to the bottom. The heat too was

most intense, and not a breath of air stirring; however at about a quarter past 11 A. M. we reached Bombai and proceeded at once to a group of houses, enclosed with a high bamboo fence. These had been built about a year previously for the King and his Court, orders having been received from Oodong to erect them, the King's intention being to pay Campoot a visit; he however altered his mind, being afraid if he left the capital the Cochinese would come up the river and attack it; in fact, as soon as the King's intention of going to Campoot was publicly known, a large body of Cochinese, well armed, were observed near Oodong, and on being asked what their intentions were in congregating in such numbers within the boundaries of the kingdom of Cambodia, they gave a very unsatisfactory account of themselves, saying they wanted to go up the river to attack Laos, an independant state above Cambodia. Their true intention was doubtless to take advantage of the King's absence, and ravage Oodong as they had done some fifteen years previously.

The houses built for the King at Bombai were now used only to store rice in, and as a depôt for carts and bullocks belonging to his Majesty. The Governor had told us the preceding evening to stay here till he had collected a sufficient number of coolies to carry our goods. On our arrival we found 7 carts ready for us, and half the number of men we required, and were obliged to wait till 3 o'clock P. M. for the rest. At that hour the Governor came with the coolies and a paper written in Cambodian, with a peculiar chop affixed to it. This paper was called a "Sumbôt Say-haw," being addressed to the Prime Minister at Oodong, mentioning who we were, the object of our visit, and the number of boxes and packages we were taking with us. This document was to be shewn to the Mykoë or head of each station we stopped at; who on reading it, would be obliged to furnish us with relays of the same number of carts and men, we had brought from Bombai. The carts for ourselves were most curious vehicles, all of wood and bamboo, not a particle of iron about them, even the axle tree being made of some hard heavy wood, working loosely in the socket or nave of the wheel, which had no tire, and was fastened in a peculiar manner to a frame work, all round the body of the cart; the axle tree, instead of being one solid piece

passing under the body of the machine, was in two parts, one end of each fixed to the sides of the frame-work, then passed through the socket of the wheel, and finally inserted in a round hole in a block of wood, composing the lower part of the cart, which was in shape like a cradle, the sides being about nine inches high, curving outwards and made of split bamboos very neatly plaited together, the corners of the frame-work being firmly tied with strips of rattan, so that the whole affair was in reality much stronger than it appeared to be, and well adapted for use in rough ground. These queer conveyances were very low and covered over with an arched top of bamboo work and attap; when lying down inside, it appeared to me as if I was immured in a coffin, only not quite so comfortable as that last resting place generally is. At half past 3 o'clock P. M. each of our party having ensconced himself as snugly as he could in one of these vehicles, with the aid of pillows, mattress, &c, we started for Tricoal, the first stage from Bombai, and distant 250 sens, or about 6 English miles. The sen is a Cambodian measure = 40 yards. There are 20 peums in a sen, each peum equal to 2 cubits, or 6 feet exactly of our measurement. The whole distance between Bombai and Oodong, is divided into equal portions of 100 sens each. A thick post on each side of the road, cut into a peculiar shape at the top, marks these divisions and at every 50 sens or exactly half way between these posts, smaller poles with rounded tops are erected. Every 100 sens or the distance between the large posts is, as near as possible, two statute miles and two furlongs, so that it is easy to calculate the distance traversed on a journey by simply reckoning the number of large posts. At $\frac{1}{2}$ past 5 P. M. we arrived at Tricoal, and informed the Mykoë or head of the station of our intention to sleep here for the night and proceed very early the next morning. We showed him our "Sum-bōt Say Haw" or paper we had received from the Governor, on seeing which he promised to have fresh carts and men ready whenever we should require them. The station itself was a very good one and the people civil. The next morning at 5 o'clock A. M. we started for the 2nd stage, Tripong Lobok, distant 500 sens or about 11 miles and 3 furlongs. We found this to be a very long and fatiguing march, what with the jolting, dust and heat,

and we were glad enough to arrive at our destination which we did at 11 o'clock A. M. This station we found to be much smaller than the last and filled with people; however they vacated one side of the house for us, and the Mykoë, who was an old man and what was singular for a Cambodian wearing a mustache, did all he could to make us comfortable, sending for mats &c, to lay over the split nibong floors and making his men fetch water for us from the tank which was at some distance. On enquiring the reason of so many men, women and children being collected together at this place, we were told that there was some religious ceremony to be held there and that sacrifices were to be offered to the guardian spirits of the place, after which they were to have a feast, that the people had collected together from all directions and that most came from villages many miles off. We noticed several Bonzes or priests among the crowd, they were easy to be distinguished by their heads being closely shaved and by their being clothed all in yellow, the sacred color in Siam and Cambodia. This festival was to last 2 days and the Mykoë informed us, much to our disgust, we should be obliged to stop at the station till it was over, as he could get no men. We however frightened him, by saying we were determined to start in the evening and that he must furnish carts and men at once, agreeably to the king's positive orders, whenever travellers were provided with a Sumbot-say-haw from the governor of Campoot; we threatened that if we were delayed here we would report him at Oodong. The poor fellow thus badgered tried to persuade the men from the neighbouring villages to go with us, so as to spare his own people as much as possible, but the strangers stoutly refused and said they belonged to other districts and were not under his orders. The Mykoë then threatened to put them all in the stocks if they refused to go on the king's service. We did not interfere in the quarrel but let them settle it amongst themselves; after a great deal of noisy discussion we were informed they had done so and that the Mykoë was to furnish as many men as he could possibly spare and that the villagers would make up the deficiency amongst them. Their arrangements being amicably effected, we started at 4 P. M. for the 3rd station Tripong Tripah, distant 550 sens or $12\frac{1}{2}$ English miles, this was the longest march we

had yet had,—luckily the greatest part of it was gone over in the cool of the evening, but the confinement for so many hours in a very cramped and constrained position was exceedingly irksome. We arrived at the station at $\frac{1}{2}$ past 10 o'clock P. M. and as we had not dined before we left Tripong Lobök, our servants, poor fellows, had to cook at this late hour, so it was past midnight before all forgot their fatigues in refreshing sleep. The next morning at daybreak we found fresh relays of both carts and men ready for us, we therefore lost no time in pushing on, knowing another march of 550 sens was before us. We left Tripong Tripah at $\frac{1}{2}$ past 5 A. M. and arrived at Tros, the fourth or middle station at $\frac{1}{2}$ past 12 o'clock P. M., parched with thirst and half choked with dust. This station is situated in the very heart of the jungle and being surrounded with large trees on every side we found it delightfully cool and pleasant. We exchanged here three or four empty beer bottles, called in the Cambodian language "Sluk perduks," for the same number of fowls. It was most remarkable to see the eagerness displayed by all the Cambodians to possess themselves of an empty bottle;—I am sure we could have got any number of fowls or ducks for a bottle, or at most 2 bottles each. We only remained here for a few hours, and left at 4 P. M. for the 5th stage Bungsuran, distant 550 sens. We arrived there at 11 o'clock P. M., and started again the next morning at half 5 A. M. for the 6th stage, Sting, also distant 550 sens; here we arrived at noon, and found much difficulty in procuring carts and men; all but two or three of the men in charge of the station having left it for a few days and gone to the nearest village, fully eight miles off. The Mykoë said he did not think they could arrive till the next morning, but promised to send a man off at once to bring carts &c.; this delay was very annoying, however we had no help for it. Close to the station was a river, with a rapid current running down, but being the dry season there was not more than four feet of water in it. In the cool of the evening we had a delicious bathe, a luxury we had had no opportunity of indulging in since leaving Campoot. The next morning we found that neither carts or men had arrived and that the Mykoë proposed going himself to the villages to hasten his men. We were very sulky at this long stoppage en route, but in the

hope that the night would be spent at the next station, we were fain to put up with our disappointment. I wandered about in the jungle close to the station and noticed some beautiful specimens of "*Tectona Grandis*" or the teak tree, also "*Dammara Orientalis*" furnishing the resin called dammar, "*Hebradendron Gambogioides*", and "*Garcinia Cambogia*", from which the gambouge of commerce is extracted; I also noticed some enormous trees of "*Clusia Flava*" or the wild mango and a few varieties of "*Erythrina Monosperma*", or the trees on which the gumlac insects generally abound; "*Quercus Tinctoria*", the bark of which is called "*Quercitron*", yielding a yellow dye, seemed also to be abundant, as well as several species of *Coniferæ*.—I looked in all directions for "*Isonandra Gutta*", or the tree from which gutta percha is extracted, but did not perceive a single specimen, it is however my belief that in the jungles and dense forests of Cambodia gutta percha is to be found, as several species of the same natural order, *Sapotaceæ*, came under my observation during my stay in the country. At about $\frac{1}{2}$ past 3 P. M. the Mykoë returned with some carts and men; he could not however get sufficient coolies to carry the things and four cart drivers were obliged to be employed for that purpose, our servants and Baba Kee acting pro tem. as drivers. The carts that were supplied for us at this station were most rickety affairs and all so short that the person inside, when lying down, was obliged to have his knees nearly touching his chin; such as they were however we were glad enough to get them, and we started at 6 o'clock P. M. for the 7th stage, Oontong Kurweōng, distant 500 sens or about $11\frac{1}{2}$ miles. We had not left the station an hour and a half when the whole line of carts was brought to a stand still by the hindmost one, which happened to be Baba Kee's, breaking down, the axle-tree having snapped in two. The night was dark as Erebus and not a glimpse of a star could be seen, our perplexity can be easily imagined stuck as we were in the heart of the jungle, the few Cambodian drivers we had with us, having all, with the exception of one old man, left and gone back a couple of miles to a hut we had passed on the road, there to cut a new axle-tree for the broken cart. We waited in vain fully an hour for them to come up, and then not liking the idea of passing the night where

we were, determined to push on and leave Baba Kee to shift for himself as well as he could. The old Cambodian that was left with us being driver of my cart, we were made to head the line and act as pioneer for the others. My old Jehu had only one eye and that one was rather dimmed through age. The poor fellow was every now and then driving into the ditch and sometimes got off the road altogether and was working his way in the jungle; on these occasions it was really laughable to hear the objurgations he bestowed on his buffaloes, putting all the blame on them. At $\frac{1}{2}$ past 12 A. M. we arrived at Oontong Kurweŋg, this station was a small one with very poor accommodation. The Mykoë and his wife were a venerable couple, each had hair as white as snow, the man said his age was 70 and his wife 65. About 7 o'clock the next morning, Baba Kee came up with his cart mended, but as the coolies carrying our things had not yet made their appearance, we were obliged to wait for them, but sent back some of the Mykoë's people to hurry them on. At about noon they arrived and we prepared to start, when five elephants came to the station with two French priests, who said they had just come from Oodong and were en route to Campoot, that the elephants they had were intended for us, but that they had received permission from the king to have the use of them till they arrived at Campoot when they were to be given over to us. These poor clergymen looked the very picture of death, they said they had come from Laos and Champa, a narrow mountainous tract between Cambodia and Cochin China, inhabited by an independent half savage race; here they had lost their health and were obliged to go to Singapore for a change and also for medical treatment. One poor fellow looked as if he was past all medical aid, I really would not have insured his life to Singapore, so haggard and cadaverous was his appearance. They described with painful pathos the recent loss of one of their number by jungle fever, high up in the interior of Champa, and the hardships and privations they had endured. It is impossible not to admire the spirit of self denial which those faithful followers of the cross, the French Missionaries in the East, display in denying themselves, as they constantly do, all the comforts and enjoyments of the civilised world, in order to spend their whole lives in privation and distress

amongst half savage tribes, in places full of miasmatic influences, and where the foot of a European had never trod, and all this for the purpose of imparting the light of Christianity to the poor benighted heathen and the benefits of civilisation to the savage. Though a protestant myself and dissenting in many points from the general spirit of Roman Catholicism, I yet admire sincerity whenever I meet with it, and am always disposed to respect and reverence the motives which impel the French Missionaries attached to the " Propaganda" to forsake all for the dissemination of the tenets of their religion, and humbly follow in the footsteps of those holy men of old, who had received our Saviour's divine command to preach the gospel to the gentiles, and spread the glad tidings of salvation in the world. But to return to my narrative; as the priests and ourselves were going in opposite directions it was agreed upon between us that they should take two elephants and complete their journey to Campoot and the other three we were to have to take with us. To this arrangement however the elephant drivers unfortunately did not agree, they said they had received orders from the king to proceed to Campoot for us and that if they met our party on the road they were then to return to Oodong with us; also that the French priests had permission to have the use of the elephants till we were met with and no longer. Such being the case and all the drivers refusing to go on to Bombai without fresh orders from the king, the priests were obliged to remain at the station; we however promised directly we arrived at Oodong to represent their case to the king and ask for a couple of fresh elephants to be sent to them without delay.

This would only involve a stoppage of two days for the priests, as our next stage was Oodong, distant only 450 sens or 10 miles. We started from Oodong Kurweong at $\frac{1}{2}$ past 3 p. m.;—all of our party but C. and Baba Kee who were well accustomed to it, had much difficulty in clambering up into the seats on the backs of the elephants. It really appeared to a novice to be a very formidable undertaking, for the brutes are not taught as they are in India to kneel down and you have no assistance from a ladder or other easy way of climbing up; a loose rope is passed round the animal's neck, by grasping this and then its ear, at the same time stepping on the elephant's forefoot,

which he raises a little on the word "Choon" being repeated you gradually hoist yourself into your place in the Howdah or seat on the elephant's back. This is all made of bamboo work, the body being shaped like a child's cradle, about $4\frac{1}{2}$ feet in length by 2 in breadth, covered over with a framework of fine split bamboos, interlaced and plaited together. This machine is hollowed out at the bottom so as to sit well on the bony ridge of the elephant's spine. Several layers of soft bark are first arranged on the animal's back, on this is laid a piece of buffalo hide denuded of hair and the Howdah over all, well secured in its position by a stout twisted rattan cable passing round the body of the elephant, and through holes in the bottom of the Howdah where the ends are secured inside. If there is sufficient bark, and it is well and equally arranged, the Howdah sits very firm in its place and is in reality much more secure than it appears to be, though it sways from side to side at every step the beast takes, thus causing a very unpleasant motion, something similar to the rolling motion of a ship in a chopping sea. After leaving Oontong Kurweong about 5 or 6 miles, the country appeared to be much more clear and open, with here and there patches of cultivation, shewing unmistakably that a large town was not far off. Where the soil was turned up for the purpose of cultivation in the small patches mentioned above, its quality appeared to be excellent, being a rich friable loam; indeed both the climate and soil of the whole of Cambodia appear to be most favorable for the growth of vegetation, the fruits indigenous to the country being of very large sizes and of the finest flavour. The following list comprises a few which I particularly noticed as being of excellent quality, *Anona Squamosa* or the custard apple, and *A. Reticulata*, the soursop, *Ananassa Satira* or the pine-apple, *Artocarpus Integrifolia*, the jack fruit, *Musa Paradisiaca*, the plaintain and banana, *Mangifera Indica*, or the mango;—this last fruit grows to a large size and is most delicious; there are three or four varieties, the best of which are equal in flavour to the famed Mazagong or Goa mango, they are exceedingly cheap too, a hundred being procurable for about a dollar.

The tobacco grown in Cambodia is also of good quality. The plant is rather of a dwarf size, averaging about 3 feet in height, the

variety appears to be peculiar to the country, the corolla being shorter and less expanded at the apex than in the ordinary varieties of "*Nicotiana Tabacum*". Various species of *Amomum Cardamomum*, or the cardamums of commerce, including *A. Repens*, *A. Angustifolium* and *Elettaria Major* are cultivated in Cambodia, and form one of the chief articles of revenue to the king. *Piper Nigrum*, or the pepper vine, is also cultivated extensively; a great proportion of this finds its way to the Singapore market where it fetches a good price.

We soon arrived at a new road the king has ordered to be made near Oodong, it begins about 4 miles from the town, and crosses a very swampy patch which extends for some way near it. The road itself is raised about six feet, and is perfectly straight and level from end to end, edged with young trees on both sides and really a much better affair than one could expect to see in an uncivilised country. The construction of this road shews great skill and ingenuity on the part of the Cambodians, it is so well macadamized, the edges being faced with blocks of stone and the sides sloped off to just the proper angle requisite to prevent them from being washed away by heavy rains. If the king would construct a road of this description from his capital to Campoot, he would confer a great benefit on his people and the trade of his country; the present one, though far superior to the track in existence some 4 years ago, which made the distance from Oodong to Campoot just double what it is now, is yet a very poor affair, being in fact no road at all, merely an open space cleared through the jungle, in as direct a line as it is possible to be; thus the ground is of course very rugged and uneven, with every here and there a swamp &c. and following all the undulations of the country. The environs of Oodong are much scattered, in fact they begin about 2 miles from the town, which is surrounded with two walls, the outer one being distant from the inner about a mile. The inner wall is the highest and strongest, being nearly 12 feet in height by 2 in thickness, well supported on the inside with a row of palisades reaching to within 4 feet of the height of the wall and distant from it a fathom, the intervening space being filled up with clay and rubble well rammed down, the level surface at top thus forming a low banquette running

all round. There are two gates to the inner wall, both made very substantially of double planks, each three inches thick, fastened and rivetted together with massive flat headed iron bolts. The gates have on each side, on the top of the wall, small watch towers for the accommodation of a few men. These gates are always shut at 9 o'clock P. M. only a small wicket being kept open till midnight for the accommodation of travellers and the towns-people. The King's palace, which includes a large space, is likewise surrounded with a third wall of brick about 10 feet high, this has also two gates which are regularly closed at sunset and not opened on any pretence till sunrise the next morning; guards are placed inside each of these gates who remain on duty the whole night.

Our elephant drivers first stopped at a minister's house who is styled "Kuball Temerai" or head of the elephants, to report our having arrived, and the completion of the duty on which they were sent. We then went to the Prime Minister whose title is "Lok Chundah" to report ourselves and to ask for permission to occupy the rooms generally set apart in the King's palace for the accommodation of Europeans, but unfortunately it was past 7 o'clock when we arrived, and we were told by the Prime Minister that the gates of the palace had been already closed and that no one dared now to ask to go in and report our arrival to the King, without whose permission we could not occupy the said apartments; he said, however, he would point out a place where we might pass the night. On our accepting his offer, he was polite enough to shew us the way himself, and went on in front carrying a flambeau; he took us to a brick building not very far from his own house, which he said was used by day as a court of justice, the interior of this was very spacious and lofty, being all one room, the flooring planked, with a raised platform some three feet from the ground and about eight feet in breadth, extending lengthways from one side of the apartment to the other. This platform was railed in and at the further end of it close to the wall were some six or eight square raised seats or dais, all of the same size, except the centre one, which was larger and raised higher than the others; these were for the accommodation of the judges, the central seat being for the one highest in rank, who is styled "Lok Chuckrum". The complainants, defendants, witnesses &c, are arranged in front

of the platform, outside the railing, when cases are tried. This building has a tiled roof and every here and there small oval openings in the walls instead of windows. We arranged our mattresses on the platform and esteemed ourselves lucky in getting into such comfortable quarters. Soon after we had unloaded the elephants, and before our friend the Minister had gone away, one of the King's sons came to pay us a visit, he appeared to be a lad of about 10 years of age, he told us he was the King's 2nd son, his eldest brother, the heir to the crown, being now in Siam where he had been residing for many years. We were told the Crown Prince's age was 30, and that the young prince who came to see us, together with a younger brother, were to be sent very soon to Siam for their education, at least this was the ostensible motive for their going, but we learnt shortly afterwards that the policy of the Siamese Government compells the princes of Cambodia to reside at Bangkok as hostages for the good conduct of the reigning King, and to ensure the regular payment of the yearly tribute. The young lad who honored us with a visit, was a good looking boy and seemed to be very shrewd and not at all shy, he brought with him a whole retinue of attendants, some 30 in number, all youths of about his own age, these paid him great respect, all in fact including the Prime Minister himself, bending the knee when addressing him. As soon as this young scion of royalty and the Prime Minister had taken their departure, our interpreter Baba Kee who had been to the bazar to see his friends, returned with an invitation from a Siamese living in the town for us to go to his house and dine with him. As we had had nothing to eat since the morning, and it would have been very inconvenient for our servants to cook where we now were, we gladly accepted the offer of the Siamese to give us a dinner, and sent Baba Kee on in front to shew the way. Our host lived at the other end of the bazar which was a pretty long one, so we had a good opportunity of seeing Oodong by torch light. Its appearance is not at all calculated to produce a pleasing impression on a stranger viewing it for the first time. The houses in general are composed of fragile materials, consisting of cadjans and attaps erected on piles, others again are constructed of clay, having flat roofs likewise of tempered clay plastered over split bamboos laid like rafters very close together, the walls having

here and there small oval openings instead of windows,—these generally look into the court yard, round which a clay wall is always raised. The town appears to be very thickly populated but as no census is ever taken, it is impossible to tell with certainty what number of souls there may be. Of course the greatest part of the inhabitants of Oodong are true Cambodians, but there are many mixed races, such as Siamese, Cochinchinese and true Chinese living in the town, and about two thousand Malays occupy a large village called Campong Oodong, situated on the river “May Kuang” and about 6 miles from Oodong, which lies due north from Campoot, distant from it about 90 miles, and is in $11^{\circ} 55'$ N. lat. and long. $104^{\circ} 11' 30''$ E. On our arrival at the house of our friend the Siamese he received us with great civility and ushered us inside where we found dinner ready spread out on the floor, and low bamboo seats arranged for each guest. The dinner really was not bad and consisted of two sorts of stew made something like the Chinese chow chow, composed of fowls, ducks, pork and vegetables, roasted salt fish and preserved onions being in separate dishes, and of course an immense bowl of boiled rice forming the principal *piece de resistance*. After dinner small cups of scalding hot samshoo were handed round, to assist probably the digestion of the rich aliment we had been treated with. At any rate we verified the old adage of hunger making the best sauce, for though on ordinary occasions, I think none of us would have found his dinner very palatable yet in the present instance we did full justice to our host's specimen of Siamese cookery. Having thanked him for his kindness, we returned to our quarters and soon forgot our fatigues in nature's sweet refresher sleep. The next morning we were much incommoded by the curiosity of the people, who having heard of our arrival flocked in crowds to see the “Parangs” as Europeans are called in Cambodia. The lower orders contented themselves by staring at us outside the railing, I have spoken of before, but the priests and people of any consideration squatted themselves down immediately in front of us, making the place insufferably hot and redolent of the fumes of tobacco,—for in this country every one, man, woman, and child, all smoke, and that too from morning till night. Their curiosity seemed to be insatiable for there they stuek for at least a couple of hours, when gradually

the crowd dispersed and each individual betook himself to his daily avocations, much to our satisfaction and self-congratulation, for we found the fragrance emitted from the persons of the gazers not to be that of Araby the blest or of the most delicious or balmiest description.

At about 8 o'clock A. M. we sent Baba Kee into the King to inform him of our arrival, and to request that better accommodation might be given us. In an hour after Baba Kee returned, having had an audience of His Majesty, who had invited us to occupy rooms in a suite of apartments immediately contiguous to his palace, and we gladly took advantage of the King's offer and removed to the place assigned to us. This was part of a long oblong building constructed very like our house at Campoot, only not near so comfortable and substantial, being divided (native fashion) into a great many very small rooms having no communication with each other, except by the doors opening into the verandah common to all, and just reversing our ideas of comfort, as the godowns below used for storing goods &c, were very lofty and the rooms immediately above, where the people live in, are low and of course exceedingly hot. A long narrow verandah with ladders at the ends extended all along the front of the apartments upstairs. We had 4 rooms given us in this building and a godown downstairs as a kitchen. The remaining 8 apartments being occupied by a lot of women, who we were told were the mothers-in-law of the crown prince and their attendants, these fair ladies took good care to isolate themselves from us, as when we took possession of our side, we found workmen putting up a temporary partition in the verandah, thus separating their rooms entirely from ours. At about 10 A. M. we received a message from the King to come over and see him, we however excused ourselves for the present, as the boxes containing our wearing apparel had not yet arrived from the last stage, but we promised His Majesty that directly our things came up, we would lose no time in paying our respects to him. At noon we received our boxes and then prepared to dress for the audience. C. and V. put on plain civilian clothes, black coat &c, and I donned my full dress regimentals, which I had brought from Singapore purposely for the occasion, having heard from my brother, that the King

particularly wished to see a British officer's uniform. Having sent Baba Kee on a little before hand to inform His Majesty of our being in readiness for an interview, we were ushered into his hall of audience and sat down on chairs at the lower end of the room awaiting the King, who they told us was inside his Zenana or women's apartments. In the mean time we amused ourselves by looking at, and taking notes of the place and its furniture. The Durbar or Hall of Audience appeared to be a spacious and lofty apartment about 40 feet square, entirely open at one end, looking into a paved passage separating it from another small room, likewise open at the side facing the passage. This small room was used as an office for the King's "Simeons" or clerks of whom we saw some 6 or 7 busily engaged in writing letters and casting up accounts. Two sides of the hall communicated with suites of apartments, at the back and right of it, those at the back of the Durbar leading into a large paved courtyard half roofed over. This was the place where the King retired to of an evening, to enjoy the "dolce far niente" and to amuse himself by seeing his women dance and hearing other performances on various musical instruments. The rooms on the right are appropriated for the use of his women, of whom he has about 300, besides 4 married wives; at the furthest end of these rooms is the King's private sleeping apartment. Various articles of European, Japan and Chinese manufacture were ranged round the sides of the Durbar, daubs of pictures in gilt frames, by Chinese artists, were placed side by side with line engravings, and large mirrors and antique glass tumblers and decanters of various uncouth shapes, together with large glass jars with ground stoppers, such as preserved fruits are generally sent from Europe in, were considered worthy of a place close to some magnificent specimens of Japan-ware similar to those exposed for sale in the European shops at Singapore. A common Chinese bamboo couch, was placed near a beautiful marble table, with massive carved pedestal and feet. This we were told was a present to the King from Mr A. —ships signal lanterns hung from the ceiling in juxtaposition with handsome large globe lamps and huge Chinese lanterns with glass chandeliers. A more motley collection of things valuable and articles not worth the picking up was perhaps never

brought together. The King evidently thought everything equally precious, for a common glass phial and sand hour-glass were taken as much care of as a fine Japan cabinet, or a Dresden porcelain vase. On the marble table was laid a very handsome desk of Chinese Japaned work, a part of which was only appropriated to its legitimate purpose of holding papers &c. The various partitions for wafers, wax, ink, sand &c were deemed by the King as admirable places for tobacco, betel, cardamoms &c, and stuffed full accordingly of these delicious and necessary condiments. Five or six watches were hung up on the wall close to the King's seat at the marble table, the whole lot would perhaps have realized at a fashionable pawnbroker's, 5 or 6 dollars. These extraordinary horological specimens must have dated their existence from the good old times of our great grandfathers, being very heavy and almost as large and thick as warming-pans, with works inside of corresponding dimensions.

After making us wait upwards of a quarter of an hour, His Majesty walked or rather waddled in, attended by a host of young women and seated himself on the arm-chair near the marble table, immediately opposite to us. A couple of ladies stationed themselves at each side of the King and commenced fanning him with great vigour, an operation he seemed to stand much in need of in hot weather, for he is enormously fat and his whole body appeared to glisten with an oily perspiration. His appearance is not at all King-like or imposing, being dull looking, with a heavy stolid air about him and his face and breast much pitted with small pox; his age is apparently 50, but he himself told us he was upwards of 60; he wears very little clothes, only a sarong round the lower part of his body, leaving the upper part down to the waist quite naked, in fact were it not for a gold band with a diamond and ruby clasp fastening the sarong round his middle, he could not be distinguished from a common cooly. His head according to the Cambodian fashion was closely shaved with the exception of a small tuft of very short bristly hair at the top of the skull. All his women except the two who were fanning him remained in a body, crouching on the ground, at the further end of the room; they all appeared to be very young and were doubtless the best looking girls we had seen in the country. Many of them had

soft and regular features and were it not for the disgusting habit of blackening the teeth and shaving the head, only leaving the short tuft of hair I have mentioned before, might really be called pretty, as all had most elegant figures with those gracefully curved flowing outlines and plump development sculptors love so well to delineate as forming the chief grace of feminine beauty. These Odalisques were very thinly clad, wearing salendangs and a long silk scarf thrown loosely over one shoulder and across the body, this piece of dress seemed to be used more as an ornament than as a necessary covering, for it was often allowed to slip off the shoulder, and had to be every now and then readjusted. We were told the greater proportion of the King's women, were the daughters of his ministers and other men of high rank, who all vie with one another for the honor of furnishing a fresh inmate for the royal Harem. They not only consider it an honor to the family but a possible source of future aggrandizement to the father and brothers of the girl, should she captivate the affections of the King, for petticoat influence is as powerful in Cambodia as elsewhere in more civilised places. It was amusing to see the constrained and uncomfortable crouching posture all the ministers and others allowed the *entree* to the Durbar threw themselves into, directly the King appeared in sight; even our interpreter Baba Kee was obliged to imitate their example of going down on their knees, supporting the weight of the upper part of the body on the elbows with the palms joined and raised above the head, which they dared not to lift up but kept constantly looking on the ground. If any one had to approach the royal person to give him anything or to obey a call, however far the distance, Cambodian etiquette prescribed a crawling progressive motion on knees and elbows. Our interview began by that indispensable custom in oriental countries of presenting Nuzzers or offerings to the King. Knowing this to be expected we had bought a few trifling articles in Singapore for this purpose. Our present consisted of two yards of very gaudily painted oil cloth, two skins of black patent leather and a couple of ditto of yellow morocco, a one-hour, and a half-hour glass, a couple of large toilette bottles of essence, with a dozen pairs of white cotton socks. His Cambodian Majesty appeared to be much pleased with the things, and after minutely

examining each article gave them in charge to one of his women. He then asked our names and who and what we, that is Mr G. V. and myself, were, and our object in coming to his country ; he appeared to be much gratified when he was told that I had come purposely to see him, having heard he wished much to see a British officer. He admired my uniform vastly and actually condescended to get off his chair and walk up to where I was seated, for the purpose of more minutely inspecting each separate article of accoutrement ; he was particularly pleased with the epaulettes which he thought were all of gold, and of course of great value. The texture of the red cloth in the coatee, next excited his admiration, and I do believe if I had weighed 18 stone instead of 8 stone 6 lbs, so that my habiliments would have fitted the portly figure of royalty, the king would not have been satisfied without purchasing or trying to get as a present my whole Military outfit. We told him we had brought with us various Philosophical instruments, such as galvanic batteries, electro-magnetic machines, a still for spirits of wine, oil and spirit lamps, blowpipe and a complete set of gilding and silvering apparatus on a large scale, with chemicals &c ; these instruments we offered to shew him as well as to plate and gild something in his presence. He enquired particularly about the use of the electro-magnetic machine and galvanic battery, which he said he had heard of in Siam, and was most curious to try the shock—he named the next day for our exhibition and then began talking about his coining machine which he had lately received from Europe through Messrs A. & Co at Singapore. This he said he had put up with the assistance of a Siamese from Bangkok and that he had begun coining silver money, but that there was something the matter with the machine, it would not work so quick or stamp as many blanks in a day, as he had been informed the maker had said it could do, added to which he thought the machine was not complete, as the blanks had to be made by hand which was very tedious work. He therefore requested us to examine the machinery, and if we knew what was wanting to inform him, that he might commission it from Europe. We readily assented to his request and getting off his chair His Majesty waddled before us to shew the way to the strong room, in which he kept this valuable specimen of

European engineering skill. On examination we found the machine itself in good order and properly fitted up, but several auxiliary apparatus wanting to complete a regular coining press, such as a rolling and flatting mill and a punching machine to cut out the blanks; a hopper or feeder to be supplied with blanks was also not forthcoming. The King complained of these deficiencies, and said he had paid a great deal of money, thinking he was to have a perfect engine for coining purposes. He complained also of no diagram or plan being sent out by the maker to assist his people in putting the press up, and said had it not been for the Siamese from Bangkok who understood a little of engineering, it would have been impossible for him or any of his people to have done anything with it. As it was, the King said the press lay in pieces for nearly a year, no one, not even the French priests being able to assist him, or give him the least hint as to putting it up. The coining machine was of beautiful workmanship, J. Ingram & Co, Birmingham, being the makers. It was intended to be worked by bullocks, but when it was finally put up, the King preferred working it by manual power, which could be more readily regulated than animal power. Unfortunately one of the dies was cracked and of course useless. The King took a note of the deficient machinery and said he would write to Messrs A. & Co, to have them ordered from the same maker, together with a complete fresh set of dies. We had already now been talking to the King for 3 hours, and I think had we not intimated our wish to retire, he would have kept us another 3 hours, but it was no joke in such hot weather to sit buttoned up to the throat in ball room dress as we were. As soon as we had gone to our apartments, the King sent us presents, in return I suppose for ours. The royal gifts excited our mirth a good deal, they consisted of half a pig, a picul of white rice and 30 choo-choos. This last is the currency of the country and a very inconvenient one it is. The only coin current in Cambodia, besides the silver bar worth 15 Spanish dollars and the Siamese "Kop" worth about half a dollar, is the *petis*; this is made of an alloy of zinc and tin, very thin and so brittle as to be easily broken between the fingers. It has Chinese characters on one side and a square hole in the middle for the purpose of a number being strung on a cord like

the Chinese cash ; the coin itself is Cochin-Chinese, but is current over a great extent of country, including Cochin-china, Tonquin, Laos, Champa and Cambodia. Six hundred petis go to a choo-choo, seven of which are equivalent to a dollar, the choo-choo is again divided into ten *teans* of 60 petis each—so that the comparative values of the Straits and Cambodian currency are as follows:—

<i>Petis.</i>	<i>Teau.</i>	<i>Choochoo.</i>	<i>Spanish dollar & Cents.</i>
60	1		=1 $\frac{3}{4}$ Cents.
600	10	1	=14 $\frac{3}{4}$ Ditto.
4200	70	7	=One Spanish Dollar.

Ten 'choochoos are generally tied together in a bundle for convenience of carriage &c.; the weight of these bundles are enormous 4 of them weighing a picul. We received from the king 3 bundles—their equivalent value in Straits money being equal to the magnificent sum of 4 dollars and 28 cents or thereabouts ; it certainly looked a great deal and was just about as much as a man could carry.

The next morning early we began to unpack and arrange our philosophical apparatus so as to be in readiness for his Majesty, thinking he would come about midday ; his curiosity however to see the things was so great he could not restrain himself and before we had finished unpacking, the king was announced, he came attended as usual by a number of women so that the little room in which we were was quite blocked up. His Majesty seated himself on the table on which all the apparatus was arranged and began to examine every thing, asking numberless questions regarding the construction, use, and cost price, &c. of each article. He evinced much delight at the electro-magnetic machine in connexion with Smee's batteries and made all his women try the shock, he himself holding them by the ears to prevent them from running away. We told him this machine was often used by our Doctors to cure rheumatism &c. and if properly used was a very valuable curative agent. The king then said he had stiff ankle joints and pain in his feet and legs with a swelling on the right heel near

the "tendon achilles," this had annoyed him for some time and baffled the skill of all the royal physicians. He said if we could cure him he would give us two hundred dollars, we refused the reward saying we were not medicos and therefore it would be presumption in us to undertake a cure, but at the same time advised him to try regularly every day for a fortnight galvanism and Holloway's ointment, a pot of which we had brought with us. The King said he would give it a trial and would come again in the evening for us to administer it; he then went away and according to his promise, favored us with another visit at 6 p. m., this time bringing less women but ten or twelve of his ministers, who were all anxious to see our wonderful machine, reports of which had by this time spread all over Oodong. His Majesty first allowed his ministers a trial, winking to me to give each a powerful shock. One stout old gentleman could not let go the conductors, but kept gripping them tight, looking the very picture of terror, and writhing like an eel, perspiration rolling off his brow in big drops, making powerful efforts to prevent himself from bellowing out in presence of the King, who seemed to enjoy the scene vastly laughing till his fat sides shook again. After all had experienced the shock his Majesty asked us to begin operating on him which we did for a quarter of an hour and then rubbed in the Holloway's ointment. This evening we showed the King the effects of the spirit lamp and blowpipe, and promised the next day if he would let us have a larger room to do it in, to distil some spirits of wine from samshoo, as well as to put the gilding and silvering apparatus into action. He said we should have accommodation in the large court yard, which I have mentioned before as being the place when the King retired to of an evening, to see his women dance &c, and ordered his people to have all the things taken over at once, he then went away, and next day early sent to tell us all was in readiness and to request we would come over as soon as possible. The greater part of the forenoon we were busily engaged in preparing the necessary gilding and silvering solutions of which an immense quantity was required, for the King insisted upon making our first trial in his presence on three very large beautifully chased silver salvers, which he wished to have gilt. This we did to his satisfaction and much to his delight; he

immediately sent for a favorite goldsmith of his to learn the way and write down the names and uses of each article. All the time the work was in progress, the King and his women were watching our proceedings with the greatest curiosity and attention. At about 10 A. M. His Majesty went to pray in an elevated place at the further end of the court yard, this pious task he was engaged in for nearly an hour, his back being turned to us and his whole mind absorbed in prayer. The mischievous young ladies present, who composed his personal attendants, took the opportunity and surrounded us on all sides, beseeching and coaxing me to gild a number of little articles of finery they had about them, such as silver and copper rings, earrings, betel and tobacco boxes &c. I did a few for them but found it a very troublesome and never ending work, for as fast as one batch was done another was produced and so on, we were therefore ungallant enough to turn a deaf ear to all their entreaties and placed a number of the proffered articles on a table close by with a few that had been already done. The young ladies were so intent upon coaxing and begging, that they neglected to take the things away or to watch for the return of the King who came upon them quite suddenly, making them fly in all directions like a herd of frightened antelopes. At first the King took no notice, but when he saw the ladies' jewellery on the table he got very angry, thinking all the gold he had given for the purpose of gilding his silver trays had been abstracted from the solution for the sole use and benefit of his cara sposas. He seized on one unfortunate damsel (who it seemed had been ordered previously by him to keep the others in check and prevent them from troubling us, and who had therefore neglected her duty) and administered with his own royal hands in our presence a wholesome castigation with a rattan. At about 4 P. M. dinner was announced and His Majesty invited us to partake of it. We of course could not refuse such an honor and found a table laid out quite in the European style with a chair for each person. The table had rather a dirty piece of blachu spread on it, which served as a table cloth, the plates and dishes were part of a very handsome set the King had received from Singapore as a present, the knives and forks looked as old as Methusaleh, but had evidently been once a capital lot, for the handles were of porcelain profusely

gilded &c; the steel part about them was however in woeful condition, the blades of the knives looking more like pieces of old iron hoop than anything else, and encrusted with rust and had doubtless never been cleaned or polished since they left the maker. The spoons were of the common composition metal sold so cheap in Singapore and elsewhere. The tumblers were very antiquated articles and must I should think have been sold by weight, for they were tremendously heavy and their sides nearly a quarter of an inch thick. The edibles consisted of various sorts of stew, very similar in taste and appearance to the Siamese dishes, we had been favored with in the house in the bazar the first night of our arrival, every thing was however if possible still more greasy and abounding in pork fat &c. To do us honor, I suppose, a roast duck trussed and cooked in European style was also on the table, and what was better than all, plenty of first rate Basses' bottled beer was produced from the royal cellars. The 2nd course consisted of various sorts of sweetmeats and fruit, with a bottle of rather indifferent port wine. Three or four favorite Siamese attendants were serving at table on their knees, and during dinner seven or eight ladies treated us to a Cambodian concert, on various musical instruments. Before we left the royal presence, the King made us promise to come over early the next morning to shew him the method of silvering metals. By this time we were all quite tired of manipulating, but did not like to refuse obliging his Cambodian Majesty, so consented to spend another day with him, never dreaming of the trouble we should have in operating upon a huge brass vessel, standing nearly 3 feet high and upwards of 20 gallons capacity, which was used by the King as a bathing tub. This enormous vase, which put me in mind of Morgrana's oil jar, in the old story of Ali Baba or the 40 Thieves, to our great astonishment was produced the following morning as the article on which we were to try our skill in plating. We represented the difficulty of silvering such a Brobdignagian affair without proper troughs for immersing it in &c, but all to no purpose, as the King seemed to have set his heart upon having it done, and over-ruled all our objections by saying he was sure it was just as easy to work upon a large article as a small one, and that as for a trough he had an earthenware vessel quite big enough to contain it. Seeing

he would not listen to us but insisted upon our trying, we set to work and after a great deal of trouble, in preparing fresh solutions &c, succeeded in giving the brass bathing tub a thin coating of silver by means of the electro plating process, with which His Majesty was perfectly satisfied. Our work being finished, we were again honored with an invite to the royal dinner which was quite the same as that of the day before. The meal being over the King sent for his four married wives and three of his daughters to introduce them to us, and to allow them to get each a shock from the galvanic-machine, the effect of which, it seemed they wished much to experience. The lawful partners of the royal bed appeared to be all pretty well stricken in years, but paid as much respect to the person of the King as any of his subjects, bending the knee and grovelling in the dust when approaching or addressing him. The daughters were of very different ages, one quite a child, the second appeared about 14 or 15 years old, and the eldest we were told was about 25. This last was very plain and, like her father, much marked with small pox, the King told us she was to be given in marriage to a Prince of Siam. The four wives were dressed all in black much in the Chinese fashion, but the daughters were lightly clothed in salendangs and scarfs of different colors, exactly similar to the dress worn by the King's concubines. The Princess Royal seemed to be a great favorite of her father's and much respect was paid to her by the courtiers, being invariably addressed by the same title as the King himself, viz: "Poco-Napursers" or your Highness. This title we did not hear given to any of the other sons or daughters, so I conclude it is used exclusively in Cambodia to the eldest offspring of both sexes who are born in the purple.

C. having occasion to pay a visit to the large Malay village I have mentioned before, as being called Campong Oolong, in order to collect some outstanding debts of his, we asked the King this evening for carts and ponies, saying we wished to start the following day. He accordingly ordered 3 ponies and one travelling cart to be in readiness whenever we should require them. We then took leave of His Majesty and proceeded to our quarters rather fatigued with our day's work, but I am afraid not as

much impressed as we doubtless ought to have been with the great honor shewn us in having dined twice with such an exalted personage as the first cousin of the Lord of the white elephant. The next morning at six o'clock, C. and myself each mounted a pony and V. got into the cart, handling the ribbons of his bovine steeds in masterly style, and making them go faster than I think they ever did before. We had not gone far when I soon found riding in Cambodia was no joke, at least with a native saddle and bridle, for the former was so short and small, it was almost impossible to sit anywhere except on the cantle, which was sharp as a knife and of course no bed of roses to the unfortunate wight who for his sins was compelled to endure an infliction little less galling than that of Mazeppa on his Ukraine steed, the stirrups were composed of rope dependent only about eighteen inches from the saddle with no means of adjusting them to a greater or less length. The girths were likewise of rope and fastened round the body of the pony very loosely, so as to prevent I suppose galling the abdomen of the poor animal, but terribly annoying to the equestrian not accustomed to maintain a balance little less perfect than that required for a rope-dancer, in order to obviate the consequences that would ensue from saddle, rider and all slipping under the belly of the pony; lastly I must not forget the bridle, which was composed of thongs of hide twisted into a cable, the bit being made of wood. As I said before, I found my position so uncomfortable I was glad enough to resign my beast to its owner and took a seat in the cart with V. The road all the way was pretty good and the six miles or so separating Oodong from Campong Ooloung was gone over by our active little bullocks in about an hour, the cart being very light and much smaller and better adapted for rapid motion than any of those we had travelled in from Campoot to the capital. The Malay campong lies in a north-easterly direction from Oodong and extends along the right bank of a very broad deep river, the May-kuang, one of the finest in Asia, but till lately scarcely known to Europeans. It rises in Tibet and afterwards flows through Laos, Cambodia and Cochin-china into the China Sea by a number of channels which form an extensive delta. Beautiful little islands, clothed with the richest verdure and shewing most exquisite

shades of green, diversify here and there the broad placid surface of this fine river, and forming, with the picturesque looking huts fringing its right bank and high mountain ranges far in the background, as pretty a landscape as any I ever recollect seeing. On our arrival at the campong, we went to the house of one of C's. principal debtors, a Malay merchant, who held some office under the king who had given him the title of Bopit Sennaär. This man received us with great civility and ordered his people to get breakfast ready for us which was soon produced and a capital one it was, much more savory and palatable than the Siamese or Cambodian dishes of which we had had lately quite a surfeit. After breakfast our host displayed for our inspection several specimens of rolls of silk all woven by the Malay women in the campong and of really beautiful workmanship, we purchased a few rolls of each kind as curiosities and then, while C. was transacting his business inside, V. and myself took a stroll along the bank of the river as far as the other end of the campong. On our return to the hut we found a number of Malays assembled in it, partly I suppose to gratify their curiosity in looking at the Europeans and partly to join in the discussion between C. and his debtor, as to the payment of the latter's long outstanding account. The Malays born and bred in Cambodia, though retaining Mahometanism and speaking the Malay tongue, intermixed with a number of Cambodian and Champa words, yet differ much in personal appearance from the inhabitants of the Indian Archipelego, wearing their hair very short and often clipped in Cambodian fashion, their bodies also are in general slighter made, wanting the bull-neck of the true Malay and evidently shewing a mixture of Chinese or Siamese blood. Now and then amongst the Malays residing in Cambodia you meet with a man from Menangcabow in Sumatra, and the difference between the latter and the mongrel race of the former is so striking as to be apparent at first sight. The extreme heat of mid-day being now over we prepared to return to Oodong, we therefore thanked our host for his hospitality, got into our chariot and about 4 p. m. arrived at our old quarters just in time for dinner, and though rather fatigued with the shaking and jolting, yet well pleased with our trip. We had barely finished dinner and were just solacing ourselves in the delights of the "Dolce far Niente," inhaling the fragrance of a prime cigar,

when our reveries were rudely interrupted by a bevy of the King's women bursting into the room, accompanied by two of His Majesty's younger sons, one of them being the lad who had honored us with a visit before in the court of justice on our first arrival. Though I am a devoted admirer of the fair sex in general, I yet must acknowledge on the present occasion I was ascetic enough to wish our tawny nymphs anywhere but near me, anathemas not loud but deep were freely bestowed on these restless curious daughters of Eve, who regardless of our objurgations turned every thing upside down they could lay their hands on. However, after satisfying their curiosity and minutely inspecting everything in the room, now and then trying on our hats or some other article of wearing apparel, we got them into something like a staid, sober, behaviour, and then enquired the reason of our being favored with a visit; the ladies replied, they were in want of pomatum, soap, essences and white bottles, of all of which they were confident we had a large stock. We assured them we had none to dispose of and regretted they were so badly off for soap &c, at the same time adding, if we had known it when we left Singapore, we would have brought them some. Our protestations of having nothing for them however they persisted in not believing and intimated their intention of staying where they were, till something was produced. We were now fairly at our wits end, till at last I luckily thought of a bottle of naphtha I had with me. This I told them was a valuable essence and that I would divide it amongst them, they all smelt it and though not much admiring its odour yet thought it must be good, as it was European and moreover a novelty. After giving each a little with as many small white bottles as we could muster between us, they to our great relief went away taking the young Princes with them, who each had fallen in love with a pair of worked slippers of mine and were wrangling in fine style for their possession. I pacified them by awarding the slippers to the eldest and V. gave a razor to the youngest with which he was perfectly satisfied and then both went away in high good humour. The next morning the king sent for us to see unpacked a large Terrestrial and Celestial Telescope on a stand which he had just received from Campoot; this the king had commissioned some time previously from Europe through

Messrs A. & Co. at Singapore. We had brought the instrument with us in the Polka, but being afraid to take charge of such a delicate thing all the way up to Oodong, fearful it might meet with injury on the road, we had handed it over on our departure from Campoot to the governor there, informing him it was the king's property and thus throwing all the responsibility on him. The telescope arrived at Oodong about ten days after us and when the case was opened it found to be in good order and nothing damaged. The glass was an excellent one and of great defining powers, Fen & Co., Poultry, London, being the makers. It was all of brass—4 feet, achromatic, with one sliding tube, two day eye draws and four astronomical powers, on a portable brass stand and clip, packed in a Mahogany case. There being no high ground in the immediate vicinity of the king's palace and lots of trees all round, shutting out what little view there might be, of course there was not sufficient scope to test the power of the glass, a quarter of a mile being about the limit of vision. This we could not make the king understand, as I believe he thought a telescope ought to penetrate through every obstacle and shew him what was going on a hundred miles off; he was therefore rather dissatisfied with this trial and next proposed looking at the sun, a very unfair test of the goodness of the glass, as the weather was rather hazy at the time and the sun nearly vertical, thus making it difficult to get a good sight. With this observation, his Majesty, as might be expected, was still more dissatisfied and protested he saw nothing, though he nearly broke his back crouching down to look up a tube pointed to an angle of about 90 degrees; he then said he would wait till night when he would send for us again to shew him the moon and stars.

Accordingly about 9 P. M. our services were once more in requisition to point the new telescope to the celestial bodies. We obtained a beautiful sight of the moon which was nearly at the full and also of a few of the fixed stars, but as for His Cambodian Highness he said he saw nothing to admire,—for his part he thought the moon looked much better through the naked eye, and the stars only appeared to be duplicates of the moon; he was therefore much disappointed and deemed the large spy-glass a regular humbug;—so much so that he said he would not have it, and ordered his people to pack it up again, to send back to Singapore.

We however remonstrated and represented the impropriety of his sending back any thing that he had once ordered. We told him the loss would fall on Messrs A. & Co, who would doubtless be much displeased at his playing them such a shabby trick and very likely would refuse in future to execute any other commissions. The King then said he would keep it, though it was of no earthly use to him, which was quite true, but then that was his fault for ordering it and of course the loss ought to fall on him and not on the agent at Singapore. The following morning we intimated to His Majesty our wish of returning to Campoot in a couple of days and requested that 5 elephants and 2 carts might be provided for us. The King gave the necessary orders to his people, and we began to make preparations for our departure. On the second day, finding that the elephants were not ready, we went again to the King, who told us in answer to our enquiries about them, that a report had just been made to him that one of his biggest war elephants had broken loose and in a fit of rage, had killed four people, that it was now at large in the jungles and had baffled all the endeavours of his keepers to catch him. The animal being a favorite one of the King's, he was determined it should be caught, so he had therefore given orders to surround the patch of jungle he was in, with a cordon of elephants, which were to be made to narrow the circle gradually till the truant beast was finally overpowered by numbers. For this service all the King's elephants had been employed, we could not therefore get our colossal steeds till the following evening, when the King promised all should be ready for us. We were very impatient at this delay, as we had already been in Oodong upwards of a fortnight, and we were much afraid that the chartered vessel would arrive at Campoot before we could get there, which would be very unpleasant for C. who might possibly have to pay demurrage. However there was no help for it and we were obliged to wait another day. The next morning we sent Baba Kee in to the King to ask for a final audience prior to our departure and receive what instructions and letters &c, His Majesty might have to give us. We were told to be at the durbar at 11 o'clock A. M., and accordingly at that hour we presented ourselves and found the King waiting for us. The old gentleman was very

gracious and expressed his sorrow at our leaving him so soon,—he gave C. two letters for Messrs A. & Co, to whom he told us he intended sending as a present, 4 coyan of rice and one picul of sugar. He again talked about his coining machine, and gave C. several small boxes containing fac-similes of the new dies he wished to have made in England. As we were about leaving, the King said he would send one of his Simeons or clerks with us to Campoot, to deliver the rice &c, C. had purchased from him, and to give orders to the Custom House authorities, not to take on this occasion the usual dues from us. C. then requested an order on the Governor at Campoot to supply him with whatever boats and men he might require to assist him in loading his vessel, of course paying for the same. The King consented to give the order in question and agreed that payment should be made at the rate of one dollar per coyan. What made C. ask for this order on the Governor was, the great trouble he had on previous occasions in procuring cargo boats. The people knowing he must have them, always demanded an extravagant price and often refused to give boats at all, thus placing him in a very awkward position and obliging the vessel to remain longer than it otherwise would; now the boats would be seized and the people compelled to furnish them at a moderate rate.

All preliminaries being now settled and the King having informed us that both elephants and carts were ready, we bade the worthy old sybarite farewell and after shaking him cordially by the hand, we bowed ourselves out and returned to our quarters to have the carts loaded and sent on in advance a stage or two. As C's. debtors in Oodong and Campong Oolong had not yet all settled their accounts with him, it was determined upon by us to leave Baba Kee behind, to collect what he could and come down to Campoot a week or ten days after us. Just before we scrambled up into our seats on the backs of the elephants, our old tormentors the ladies of the Harem with their attendants, came flocking round "as thick as leaves in Vallambrosa" to bid us adieu. The poor creatures seemed to be quite sorry to part with us and though the feeling was not very reciprocal on our side, we of course felt flattered by their good opinion of us; but I strongly suspect their chief cause of regret, consisted in their not

being able in future to forage about our rooms, picking up what they could in the shape of presents &c. At $\frac{1}{2}$ past 5. P. M. on the evening of the 15th May, we left Oodong for the first stage en route to Campoot, viz, Oodong Kurweong. We had not gone seven miles when we found we could not get on further that night, as the elephant drivers told us their beasts had before we started come in from the jungle, a distance of 25 miles, having been employed in catching the large war elephant that I mentioned before as having broken loose and done so much damage; of course the poor animals were very tired and in fact shewed unmistakeable signs of fatigue, we were therefore obliged to pass the night where we were. Luckily there was a small shed near; here we adjourned and made ourselves as comfortable as it was possible to be. The situation was very romantic, and, as we bivouacked on the bare ground, listening to the ripples of a brook close by, and watching the shades of evening close in and gradually throwing the recesses of the forest into deep obscurity, only to be lighted up, soon after, with the chastened beams of a moon nearly at the full and the clear vault of heaven above, glittering with the liquid radiance of galaxies of stars, the fitful gleams of the fire-fly here and there flitting amongst the underwood in the low ground, like the coruscations seen by reflected light on the facets of the diamond, with those extraordinary sounds all round so well known to the traveller or sportsman who has ever spent a night in the depths of a Malayan jungle,—it was impossible not to admire the scene, so disposing the mind to look from nature up to nature's God, and feel the littleness and utter insignificance of the proudest works of art, in comparison with the handiwork of that great Architect of the Universe.

We started at 6 o'clock the following morning to complete the stage and soon reached it, as it was not very far from our halting place of the night before. The distance being so short, and our elephants now quite fresh, we passed Oodong Kurweong hoping to be able to reach the second station, but at noon the heat was so intense and our animals suffered so much from it that we were obliged to halt again at another half way shed and remain here till $\frac{1}{2}$ past 3 o'clock P. M., when we proceeded on to Bungsuran, where we intended to sleep. We arrived at 6 P. M. not a little

fatigued with the very unpleasant motion and cramped position we had remained in for so many hours. After this we made regularly two marches a day, morning and evening, till we reached Campoot or rather Bombai, which we did on the evening of the 4th day after leaving Oëdōng. On our arrival at Bombai we at once proceeded to the governor's house, to report our arrival and to ask for a boat to take us to Campoot, but unfortunately we found the governor out, so we next went to his son-in-law Chinchoo Choon, and procuring a boat from him, put all our things in and paddled ourselves down the river; we found every thing in our house at Campoot "in statu quo," and the seals on the doors not broken, a very fair proof of Cambodian honesty.

We were disappointed in our expectations of seeing the vessel that was to take us back to Singapore anchored in the roads on our arrival at Campoot, and we had to wait upwards of six weeks before it made its appearance. This delay was very vexatious as C. had his cargo ready and we were all pretty well tired of Cambodia and anxious to get back to a more civilized place. About a fortnight before the vessel arrived, the monsoon set in with heavy rain and constant squalls from the S. W. and W. rendering the loading of ships very difficult and often really attended with danger, cargo boats now and then being swamped at the ship's side. The S. W. monsoon generally sets in the middle of May and lasts till the middle of October, when the N.E. monsoon begins, but this year the S. W. winds set in late, and little rain fell till the end of June. The S. W. monsoon is the wet season in Cambodia and the N. E. the dry. The average temperature during the rainy months seems to be in the day time 78° of Fahrenheit, and 74° at night. In the latter part of the dry season, in the months of March and April, the heat is very intense, the thermometer averaging 85° but often rising up as high as 96° in the shade. The climate is I think healthy, as I met with many instances of longevity amongst the natives of the country during my stay in it. I left Campoot on Friday the 21st of July, having gladly availed myself of a passage very kindly offered me by the worthy commander of the "Polka," Captain Welch. At 3 P. M. we got under weigh with a fresh breeze from the W. S. W. and at 5 P. M. the Twins bore S. E.. These are two small islets lying to

the eastward of the large Island of Kuthrall, or Koh-dud, as it is called in the Charts; the Twins can be seen at 10 miles distance, being about 86 feet in height and are in lat. $10^{\circ} 14'$ N. and long. $104^{\circ} 18'$ E. At noon the next day the Brother and Sister bore S. $\frac{1}{2}$ E. distant from the ship about 8 miles, these two islands are well wooded and can be seen at about 20 miles in clear weather. The larger Island, the Brother, is about 180 feet height and is in lat. $9^{\circ} 48'$ N. and long. $104^{\circ} 10'$ E.; the Sister is nearly two miles distant from the Brother, in a S. W. by W. $\frac{3}{4}$ W. direction; the Southernmost Omega, another group of small islands, bearing S. S. W. from Koh-dud lies W. N. W. true from the Brother, being about 8 miles distant from it. The variation of the compass in this part of the Gulf of Siam is $1^{\circ} 40'$ E. At daylight on Sunday morning Pulo Panjang bore from the ship W. S. W. and Dammar Island N. E. by E.—this last is in lat. $9^{\circ} 39'$ N. Pulo Panjang is a large flat island apparently in the shape of an Isocetes triangle, lying in an E. and W. direction, it is near 500 feet high and is covered with trees;—it can be seen at about 25 miles distance, the west end of it is in lat. $9^{\circ} 16'$ N. and long. $103^{\circ} 32'$ E. On Thursday at $\frac{1}{2}$ past 5 A. M. we sighted the great Redang which bore S. distant about 30 miles, Pulo Lantinga bearing S. W. The great Redang is in about lat. $5^{\circ} 57'$ N. and long. $102^{\circ} 54'$ E. it is very high land, and of considerable extent—it is thickly wooded and can be seen about 45 miles, being upwards of 1,200 feet in elevation. There are four islets lying to the S. S. E. of the great Redang, the southernmost of which is a barren rock with a very little stunted vegetation on the top; the islet in this group, lying as above, nearest the great Redang is also a barren rock with not a particle of verdure on it, it is of very singular formation, appearing at a distance as four isolated hummocks, but on nearing it they are found to be all one island, the hummocks being connected with each other by low ledges of rocks; when the great Redang bears W. this islet is in one with the S. end of the large island. Pulo Lantinga is about 9 miles to the N. W. of the great Redang, it is high land and can be seen a good way off. On Friday the 28th, at 6 A. M., Pulo Capas bore from the ship S. W. $\frac{1}{2}$ S. and Pulo Brala S. S. E. The former island, Capas, is about 37 miles N. W. from Brala, it is rather low and of rocky formation with

a little vegetation on the top. This isle is in about latitude $5^{\circ} 15'$ N. and longitude $103^{\circ} 13'$ E. Pulo Brala is a large island and may be seen about 34 miles, it is nearly 700 feet high, it is in latitude $4^{\circ} 47'$ N. and longitude $103^{\circ} 37'$ E. A small islet covered with vegetation, with two or three rocks near it, lie about 4 miles N. N. W. from its northern extremity, there is also another black rock about a mile and a half distant from its southern extremity. At $\frac{1}{2}$ past 9 A. M. on Saturday, we passed a junk steering North; from the evening of this day up to Tuesday, the 8th August, we had most baffling winds and made hardly any way, light airs (with occasional strong gusts) constantly setting in from S. to S. E. with no alternations of land and sea breezes, such as are usually experienced along the coast during this monsoon, a strong current also of a little more than 2 knots an hour setting to the N. W. added still more to the difficulty of working down to the Southward. From Tringanu downwards, the scenery is of a very interesting character, the coast having a beautiful appearance, with numerous bold rocky headlands and deep Bays, high mountain ranges in the interior, clothed with the richest verdure and finely wooded, forming a pretty background to the cocoanut groves and sandy beaches of the seashore, studded here and there with picturesque little villages embosomed in trees and mostly situated near the embouchures of small rivers, which empty themselves in these bays. Quite close to the shore the depth of water is great and it shoals very gradually; off the river Sidilli, in about lat. $4^{\circ} 45'$ N. and long. $103^{\circ} 20'$ E. we approached within a mile and a half of the sandy beach with a depth of eleven fathoms, (bottom hard sand). There is a small village on the left bank of the mouth of this river, close under the south side of a bold rocky point. The river Sidilli may be known by the bend of the coast, and the bold projecting rocky point which I have just mentioned as being off its entrance, which is barred with rocks. On Sunday the 6th, at 10 A. M. we exchanged signals with a small schooner (the "Young Queen") which was steering north and bound probably to Tringanu, and on Tuesday the 8th, at noon we fell in with a small schooner rigged schootchee of about 20 coyans burthen, belonging to the Tumongong of Singapore, and bound for that place, having loaded with rice at Tringanu, she reported that

two Siamese men of war were cruising about the coast in search of pirates. On Wednesday the 9th, at 7 P. M. South Cape bore N. $\frac{3}{4}$ W., entrance of the river Camamam N. N. W. and Pahang point S. by W. On Friday morning at sun rise we were off the entrance of Pahang river and fell in with numerous little fishing boats coming out with the land wind, the entrance of the river is in lat. $3^{\circ} 31' 30''$ N, about 25 miles N. W. of Pulo Varela and may be known by a ridge of trees north of it, and Pahang point bounding it on the south side. From Pahang to Blair's harbour the coast forms a large bay and then stretches nearly S. S. E. being mostly low and woody. At noon of this day Pulo Varela bore S. by W. $\frac{1}{2}$ W. This island is a small barren rock about 170 feet in height with a few stunted bushes crowning its summit. From Varela down to Romania Islands we had a very tedious passage, only rounding the point on Friday, the 8th and anchoring in Singapore roads on Saturday at noon, 30 days having elapsed since our departure from Campoot.

NOTICES OF SINGAPORE.*

REGULATION NO. IV. OF 1823.

A Regulation prohibiting Gaming Houses and Cock-pits and for suppressing the vice of Gaming at Singapore.

THE practise of gaming being highly destructive to the morals and happiness of the people, and it being inconsistent with the principles of good Government to admit of public gaming houses and cock-pits, it is hereby declared :

That no public gaming house or cock-pits will hereafter be tolerated by Government under any circumstances or for any consideration whatever, and that from and after this date all persons are strictly prohibited from keeping such on any terms or pretence whatsoever.

That any persons offending against this Regulation, or who may be proved to have hereafter received money either directly or indirectly for conducting a gaming table or cock-pit, shall be liable, according to the circumstances of the case, to the confiscation of a certain amount or the whole of his property and banished from the settlement, with corporal punishment at the discretion of the Court.

That the house or building with the ground on which it stands in which it may be proved that such a gaming table or cock-pit has been kept, shall also be liable to confiscation.

That all persons who may be detected in the act of gaming or cock-fighting, whether at a gaming table or not, shall be taken up by the Magistrates and punished according to the circumstances of the case.

No gaming debts can be enforced by the winners, but in all cases that may come before the Magistrates or the Resident's Court, the winners will be compelled to restore the amount to the losers.

The Magistrates will adopt such minor regulations in the Department of Police as they may deem advisable for carrying the object of this regulation into effect, and for suppressing the vice of gaming as far as possible, without trespassing on the free will

* Continued from p. 111.

of private conduct as long as it may not be injurious to society in general.

This Regulation to be in force and effect from this date and to be considered as provisional until confirmed by the Governor-General in Council.

(Signed) T. S. Raffles.

Singapore, the 1st May, 1823.

Extract from the Penal Code of China concerning Gambling.

Whosoever games for money or goods shall receive 80 blows with a Cudgel on the breech and all the money or property staked shall be forfeited to Government. He who opens the gambling house, although he does not gamble, shall suffer the same punishment and the gaming house shall be confiscated. If Government officers gamble, their punishment shall be increased one degree.

A subsequent clause enacts that "whoever gambles, whether soldiers or people, shall wear the broad heavy wooden-collar one month and be cudgelled with one hundred blows."

Those who set up an occasional gambling house and harbour gamblers shall, together with the head gamblers, (if not numerous) all be punished by wearing the wooden-collar three months &c.

In some cases the parties are to be transported.

By order of the Hon'ble the Lieut.-Governor.

(Signed) L. N. Hull.

Acting Secretary.

To George Swinton, Esquire,

Secretary to the Government,

Fort William.

Sir,

In reply to the ninth paragraph of your despatch of the 5th of March, it becomes necessary for me to state explicitly for the information of the Right Honorable the Governor-General in Council, such deviations and modifications of the Provisional Regulations promulgated by the Lieutenant-Governor of Fort Marlbro' for the administration of justice, as the necessity and difficulty of my situation compelled me to have recourse to, and to crave the indulgence of Government for the deviations and modifications in question.

The Provisional Regulations in question provided for the establishment of an eleemosynary Magistracy from among the British inhabitants of Singapore by the appointment of the chief local authority. One of these Magistrates had authority in civil cases, where the matter in dispute did not exceed 50 Spanish dollars in value, and two of them where it did not exceed 100. In criminal cases the authority of one Magistrate extended to inflicting 20 blows of a rattan, with one month's confinement, or hard labour with a pecuniary penalty of twenty dollars, and two Magistrates had the power of inflicting 30 stripes and six months imprisonment, with a fine of fifty dollars or *further punishment*, subject to the confirmation of the Resident. With respect to what was called the Resident's Court, consisting of the two native Princes if inclined to attend, and of two British inhabitants acting as assessors; this was in fact never constituted at all by the Lieutenant-Governor of Fort Marlbro', and on my taking charge, the persons acting as Magistrates and from whom the assessors were to be chosen, declined acting on account of the heavy responsibility which they considered themselves incurring by such appointments. In this Court the Resident was to have had, whenever he thought proper to exercise it, the whole power in criminal cases.

Government will have the goodness to observe from this sketch that by the Resident's nomination of the Magistrates and assessors, and the powers vested in himself as far as regarded the higher class of criminal offences, the whole responsibility of the administration of justice necessarily fell personally upon him ;—that he was answerable for every stripe inflicted, for every hour of incarceration and for every shilling imposed by fine or given in judgment.

So heavy a responsibility necessarily led me to pause, and to enquire into the legality of the power thus to be exercised at my personal risk and responsibility. I had the advantage of personally consulting upon this subject the Honorable the Recorder of Prince of Wales Island and the late Advocate General Mr Spankie, and soon found that a single Magistrate by the law of England, which by the provisional Regulations is declared to be that of the Settlement, could inflict no species of corporal punishment, whatsoever, nor impose any fine, nor take cognizance of any private injury or civil contract, and that two or more Magistrates could

exercise no authority that was not entrusted to them by special statute. On this principle it is needless to observe that the Regulations promulgated for the Settlement of Singapore, and purporting to be the law of England, were in fact in direct opposition to that law, and therefore *ipso facto* of an illegal character.

Had the Magistrates of Singapore been permanently nominated to their offices by the Lieutenant-Governor of Fort Marlbro', it would have been my duty to have continued matters as I found them, but as the whole body was, on the contrary, to be especially selected and appointed by the Resident yearly, and the three acting Magistrates chosen by the same authority quarterly, it became indispensibly necessary for me to see that they were not exercising a power beyond the character and spirit of English law. The gentlemen acting as Magistrates in the mean time claimed the full exercise of the authority vested in them by the local Regulations. The sentences passed in virtue of the Regulation against illicit gaming brought this matter to a crisis. That Regulation, the severity of the provisions of which has been observed by Mr Advocate General Fergusson, enacts that persons convicted of gaming, directly or indirectly, shall be mulct of part or the whole of their property according to circumstances,—be subjected to corporal punishment at the discretion of the Court, and be banished from the Settlement; while it further provides that the house and ground on which any gaming table or cock-pit has stood, shall be subject to confiscation.

A sentence of this nature was on the point of being carried into effect, by the eleemosynary Magistrates of Singapore, when I found myself compelled to come forward to stay the proceedings and finally to annul them. The Magistrates of Singapore continued until the end of the year, after which I could no longer take the responsibility upon myself of re-appointing them and prolonging the exercise at my risk of powers which I could not approve of.

It now becomes necessary to describe the plan upon which the administration of Justice has been conducted within the last few months. My endeavour has been to administer justice on the general principles of English law, as nearly as the condition and circumstances of our situation, and the character and manners of

the different classes of the inhabitants, would admit, and this was in fact what the provisional Regulations themselves contemplated. On Thursdays a Court of Requests is held, the processes and decisions of which are guided by the Rules observed in the Court of Commissioners for the Recovery of Small Debts at Prince of Wales Island, a copy of which is on record. The Commissioner of this Court is the responsible Assistant to the Resident, and its jurisdiction extends only to the value of 25 Spanish dollars. On Monday the principal Court is held, and in this the Resident and his Assistant sit jointly as Judges and Magistrates, and decide all criminal and civil suits, constituting a sort of petty sessions and commonly exercising in criminal matters such powers as are given to two Justices of the Peace by the general law of England, or to Indian Magistrates by the ordinances of the Governor-General in Council registered in the King's Court. In criminal cases the punishments have generally consisted of small fines—incarceration, seldom exceeding three months, and occasionally, but rarely, corporal punishment, never exceeding 25 stripes. A minute of every case is taken in a few short words; regular summonses, subpoenas and warrants of execution are issued, and in general an attempt, although a very inadequate one, has been made to establish a regular process for the Court and a regular administration of justice; but the inexperience of the Judges, their numerous other avocations, the want of competent authority, and the extent of the business of the Court (for there have been seldom less than 70 suits a week) have proved insuperable obstacles.

On all other week days than Mondays and Thursdays, petty disputes are settled, informations and examinations are taken, warrants issued for apprehending offenders, and in short the ordinary duties which belong to a single Justice of the Peace by the common law of England exercised.

In one respect especially the inadequacy of the jurisdiction of this Court has been most lamentably felt. This refers to the case of British subjects, who are at present amenable to no authority at this place, and the ill disposed among whom have it always in their power to set the authority of Government at defiance, and to render themselves a bane to the peaceable inhabitants. I shall not at present enlarge upon this unpleasant topic, as I humbly

trust it will shortly be in the power of Government to put an end to this very serious evil, equally prejudicial to the national character and to the prosperity and respectability of the Settlement.

I have &c.,

(Signed) J. Crawford.

Resident.

Singapore, 1st July, 1823.

Territorial Department.

To

Holt Mackenzine, Esquire.

Secretary to the Government, Fort William.

Sir,—I have the honor to lay before the Honorable the Governor-General in Council a sketch of the available revenue of this Settlement, with a short estimated comparison of our probable future resources and disbursement.

2. It may be necessary to premise that the principal sources of revenue in the eastern islands are an excise or tax on the consumption of opium, spirituous liquors, pork and fish. To these may be added taxes on gaming, Pawn Broker's shops &c.&c.

3rd. These taxes are commonly rendered a monopoly, and under the name of *Farms* disposed of to one person, who again sublets his privilege, according as he judges best for his own convenience and advantage. In this manner each particular branch of the revenue is sold at Prince of Wales Island to one individual, and even in the large Island of Java, where there are several millions of inhabitants, these are not in all above five or six farms for each distinct subject of revenue.

4. Having been for some years accustomed to the consideration of questions of the nature and viewing the vicious principle of establishing monopolies as equally prejudicial to the government and the public, I have ventured in the arrangement of the revenues of this Settlement upon some considerable changes, which I trust will meet the approbation of the Supreme Government.

5. Instead of a monopoly in favor of an individual, I have decided upon establishing a certain number of licenses for each branch of revenue, on an estimate of the wants and consumption of the place, and these have been disposed of by public outcry to the highest bidder, substantial security being taken for prompt

monthly payment. There is nothing new in this arrangement, being the same with the licenses in England for the retail of wine and spirits, substituting the public sale for the discretion vested in the Magistrates. It will not be necessary in this place to describe the specific conditions of the licenses so disposed of. As an illustration of the general principle and as an example of the whole I have the honor to append to this letter the conditions of the arrack license.

6. The licenses disposed of on these principles are those for opium, Asiatic spirits, pawn brokers and the manufacture and retail vend of native gunpowder.

7. The advantage of substituting licenses for the former farms or monopolies, will I hope appear evident from a comparison of the sale of the two principal licenses, those of opium and spirituous liquors, at the present and preceding sales, where there is shewn an advantage in favor of the license system for the first of 83 per cent and for the second of 125 per cent.

8. The detailed results of the present and preceding sales are as follows:—

	The preceding sale	Present sale.
Opium, Spanish dollars	1,615	\$ 2,960
Arrack "	682	" 1,540
Pork "	302	" 302
Gunpowder "	..	" 217
PawnBrokers,"	..	" 175
Gaming "	778	" ..
	<hr/>	<hr/>
Sp. dollars....	3,377	\$ 5,194

9. From this statement it will be observed that two small additional licenses have been created, that one has been abolished, and that another remains without alteration. The monthly increase upon the whole is \$1,817 per mensem, or exclusive of the abolished farm \$778. I may further remark on this point, that on the supposition of the abolished license being restored and its selling upon terms equally advantageous with other licenses, which was to be reckoned upon, the actual monthly revenues arising from these farms would have amounted to \$6,718.

10. On the subject of the abolished license, viz, that for gaming and the two new ones established, viz, those for pawn-brokers

and for the manufacture and vend of native gunpowder, as well as that for the vend of pork, I respectfully submit the following explanations.

11. The license for gaming houses was abolished at the end of April last, under impressions and opinions which have already been submitted to the Supreme Government by the Lieutenant-Governor of Fort Marlbro'. Differing wholly on this question with Sir S. Raffles, it will be the more necessary that I offer a full explanation, a matter which I am enabled to accomplish with the more satisfaction, as I have already frankly explained my sentiments and dissent to himself in person.

12. The gaming licenses have been abolished by Sir S. Raffles under a belief that to license gaming was to encourage the vice, and that the revenue which government received from this source must necessarily be obtained at the expence of the morals of the people, and therefore unworthy of the character of the Government. If the actual circumstances of the case really warranted this inference, I should be heartily prepared to join the Lieutenant-Government of Fort Marlbro', in recommending the permanent abolition of the gaming license, but after a long and attentive consideration of this question I am inclined to come to very different conclusions.

13. The passion for gaming pervades all ranks of the two principal classes of our population, the Chinese and the Malays, to a most unusual and extraordinary extent, and I am clearly of opinion that in the relation which we stand to them, and the slender opportunities which we possess of reforming their manners and habits, the propensity, as far as our influence is concerned, is incurable.

14. If our population, even with the habits I have ascribed to it, were of a stationary nature there might be fair hopes, with time and pains, to improve it, but the fact is, that by far the greater proportion of the people who are found here are not permanent inhabitants of the place, but individuals who make a temporary convenience of it for a few weeks, for a few months, or at most for a few years. To attempt the reformation of a people so circumstanced appears to me to be utterly hopeless.

15. It is necessary, besides, to observe that the practice of gam-

ing, especially in reference to the Chinese, is not a vice of the same character which Europeans are accustomed to contemplate it. It is in fact an amusement and recreation which the most industrious of them are accustomed to resort to.

16. Having few holidays and scarcely any amusements besides, they consider being debarred from gaming as a privation and a violence in some measure offered to their habits and manners.

17. It is true, indeed, that gaming is prescribed by their code of laws. The prohibition in this case however seems a dead letter, and perhaps scarcely more valid than that interdiction of foreign trade and emigration, to the disregard of which we owe at this very Settlement one of the principal branches of our trade and the most numerous and industrious class of our population.

18. The real effect which I am inclined to believe the prohibition of gaming must produce, while the propensity to indulge in play is so habitually strong, will be, that gaming instead of being publicly carried on will be pursued clandestinely, that instead of being subjected to a wholesome controul, all restraint will be removed from it, that the price of conniving at the practice will always be a source of temptation and corruption to the inferior officers of the police, and that, finally, although perhaps less worthy of consideration, a large revenue will be very unnecessarily sacrificed for an imaginary benefit.

19. In support of the opinions now offered I may safely quote the results of the abolition of the gaming licenses, at Prince of Wales Island, which took place about 13 years ago on a representation from the Grand Jury, shortly after the establishment of the King's Court at that place. The gaming, notwithstanding the abolition, is admitted to have gone on undiminished, large fines have been weekly levied on account of illegal gaming, and about three years ago the whole police, including the European Constables, were discovered in a conspiracy to defeat the laws against gaming and convicted of having been concerned for years in taking large bribes for conniving at illicit play, while in point of revenue a loss of not less than $\frac{1}{2}$ a million dollars, has been experienced. A reference in consequence of the discovery of this abuse was made to the Hon'ble Court of Directors, and, as I understood from the best source, authority has recently been given to reconsider and re-establish the licenses.

20. If the statements and reasonings which I have now respectfully submitted be considered of any weight, I trust I shall have the authority of the Hon'ble the Governor-General in Council for restoring the licenses in question, if only with a view to objects of police, and so that the gaming may at least be made to defray a part of the charge of those establishments which the exercise of it, either openly or clandestinely, must always in a great measure create a necessity for supporting.

21. On the subject of the two new licenses, those for pawn brokers and the manufacture and retail of native gunpowder, not much explanation I hope will be necessary. They were chiefly instituted as a measure of police. It is evident that both are of a nature that would render them serious nuisances if under no controul. The manufacture of gunpowder requires a few more words. It was found that no less than five manufactories of this article existed and that they were carried on in the immediate precincts of the town, to the imminent danger of the place, as they were necessarily without restraint or inspection on the part of the public authorities.

22. With reference to the farm for the vend of pork, this is a recent branch of revenue, created as I understand for a temporary and specific purpose and which expires at the end of the year. I trust government will favor me with an authority not to restore it, viewing it as I do, as an extremely injudicious tax, affecting one of the principal necessities of life of the most numerous and industrious class of our population, and this too under aggravated circumstances, since the whole of the article is imported and from its nature at a very heavy expence. The inconsiderable revenue derived from it, it will be observed is more than compensated by the two new licenses which are on the present occasion submitted for approval.

23. The quit-rents of lands disposed of on the principle laid down by the Supreme Government will constitute another item of revenue. On the first of January I am in hopes that four thousand Spanish dollars, or thereabout, will be realized from this source, giving a monthly revenue of 333 dollars.

24. The rents of houses purchased by the government and of which an account has been rendered in the correspondence of the Lieutenant-Government of Fort Marlbro', form at least a tempo-

rary source of revenue. Both with a view to re-imburse the Government, and as the best means of preserving the buildings themselves, I have considered it the most eligible plan to let them on short leases of 6 months to the highest bidder, as they are from time to time vacated by the present occupants. When the whole are let in this manner, it is estimated they will bring a monthly revenue of somewhat more than 1,000 Spanish dollars. At present two only have been vacated by the occupants and let, and these, besides affording offices for the Magistrates and Master Attendant, a boat office, and room for the military stores, bring a monthly rent of dollars 300.

25. Should government be pleased to give their sanction to the revenue measures which I now have had the honor to propose, the actual receipts will amount to 7,749 Spanish dollars a month. This revenue appears in no respect to press upon the industry of the place and from the nature of the principal branches of it may be expected to increase from year to year, to keep pace with the prosperity of the Settlement, and ultimately to meet our disbursements, of which at present it falls very considerably short.

26. To place this subject in one view before the government, I shall here beg leave to exhibit a short sketch of the ordinary expences of the Settlement. They are as follows:—

Civil establishment.....	\$3,923
Stipends to native princes.....	2,000
Military establishment	3,349

Total 9,272

27. By this statement it will appear that the actual deficiency is 3,445 dollars and that with the prospective improvement in the revenue, which I contemplate will be the result of the measures I have recommended, not more than 1,500 dollars.

I have, &c.

(Signed) J. Crawford,

Singapore, 15th July, 1823.

Resident.

Notification.

Notice is hereby given that on the 10th instant, at the hour of 10 o'clock in the forenoon, will be sold by public auction and open competition at the Court house and in presence of the Resi-

dent, the following revenue licenses on terms and conditions which are fully detailed in separate advertisements, viz.

10 Licenses for the manufacture and retail of certain spirituous liquors.

5 Licenses for the retail of prepared opium &c.

3 Licenses for keeping pawn-brokers shops.

By order of the Resident,

(Signed) S. G. Bonham,

Assistant to the Resident.

Singapore, 1st July, 1823

Conditions of sale of the licenses for the manufacture of gunpowder :—

1. There shall be—gunpowder manufactures and no more.

2. The licenses for the manufacture of gunpowder will be sold separately to the highest bidder for hard Spanish dollars.

3. The rent of the licenses shall be paid into the Treasury by monthly instalments on the 1st day of each month, and the licensed manufacturer shall procure two competent securities for the fulfilment of this condition.

4. In failure of the fulfilment of the last condition, the licence will be resold by government, the original holder and his securities making good any loss that may arise therefrom.

5. The licenses shall be sold for 9 months certain, viz. from 1st August 1823 to the 30th April 1824.

6. It shall be fully understood on the day of sale, that the sale of any one licence shall not be complete until the whole shall be declared bonâ fide disposed of.

7. The privileges conveyed in the license shall in no manner be considered to interfere either with the wholesale or retail vend of gunpowder.

8. No manufacture of gunpowder shall be established within the town of Singapore or in its neighbourhood, and the places where they are established must be approved of by the Magistrates.

9. No gunpowder above the quantity of one catty shall be removed from one place to another, without notice of such intended removal being given at the office of the Magistrate, under the penalty of 50 Spanish dollars, $\frac{1}{2}$ to go to the government $\frac{1}{2}$ to the informer.

10. The illicit manufacture of gunpowder shall subject the offender to a fine of 100 Spanish dollars, $\frac{1}{3}$ rd to go to the informer and the remaining $\frac{2}{3}$ rds to the licensed manufacturers.

By order of the Resident,
(Signed) S. G. Bonham,

Assistant to the Resident.

Singapore, 1st July, 1823.

Conditions of the sale of the Pawn-broker's shops.

1. There shall be three licensed pawn-broker shops and no more.
2. The licenses will be sold separately to the highest bidder for hard Spanish dollars.
3. The rent of the licenses shall be paid into the Treasury by monthly instalments on the 1st day of each month, the licensed dealers shall procure competent securities for the fulfilment of this condition.
4. In failure of the fulfilment of the last condition, the license will be resold by government, the original holder and his securities making good any loss which may arise for such resale.
5. The licenses shall be sold for 9 months certain, viz. from 1st August 1823, to the 30th April 1824.
6. It shall be fully understood on the day of sale, that the sale of any one license shall not be considered complete, until the whole shall be declared bonâ fide disposed of.
7. One house or one shop only shall be kept by virtue of one license, over the door of which shall be written in legible characters in English, Chinese and Malayan "pawn-broker."
8. Pawn-brokers shall keep regular entries of all goods pawned with them, and shall supply the individual who pawns them with a certificate, which certificate shall be a duplicate of the entry made in their books.
9. Pawned goods shall be deemed forfeited at the expiration of one year from the day on which they are pledged, when, if they exceed in value 10 Spanish dollars, they shall be sold by auction, due notice being given to the Magistrates and to the public by beat of gong, two days previous to the day of sale.
10. Licensed pawn-brokers are authorized to demand and take the following rates on pawned goods.

Goods of the value from	Drs.	1 to	10	10 p Cent	p mensem.
Ditto.....	„	10 to	30	7½	ditto.
Ditto.....	„	30 to	50	5	ditto.
Ditto.....	„	50 to	100	4	ditto.
Ditto.....	„	100 to	500	3	ditto.
And for all sums above	„	500		2	ditto.

11. Persons becoming purchasers of pawn-brokers' licenses will be required, over and above the security given for the payment of the price of the license, to give satisfactory security for the protection of the public to the amount of 1,000 Spanish dollars or to deposit this amount in the public Treasury.

(Signed) J. Crawford,
Resident.

Singapore, 1st July, 1823.

Conditions of sale of the licenses for the manufacture and retail of spirituous liquors.

1. There shall be ten licenses for the manufacture and retail vend of spirituous liquors, and no more.

2. The licenses for the manufacture and retail vend of spirituous liquors will be sold separately to the highest bidder for hard Spanish dollars.

3. The rent of the licenses shall be paid into the Treasury by monthly instalments on the first day of each month, and the licensed dealer shall procure two competent securities for the fulfilment of this condition.

4. In failure of the fulfilment of the last condition, the license will be resold by government, the original holder and his securities making good any loss that may accrue from the resale.

5. The licenses shall be sold for 9 months certain, viz. from 1st of August to the 30th April, 1824.

6. It shall be fully understood on the day of sale, that the sale of any one license shall not be considered complete until the whole shall be declared bonâ fide disposed of.

7. The houses for the retail vend of spirituous liquors shall be open from day-light till 9 o'clock in the evening only, and for every breach of this condition, the offender shall be subject to a fine of 50 Spanish dollars, ½ to be paid to government and ½ to the informer.

8. The spirituous liquors over which the licenses shall convey a privilege shall be understood to be the following only, viz.

Keecheo, the bonâ fide manufacture of Singapore.

Cochin-Chinese Arrack.

Batavia ditto.

Indian Rum.

Gin.

9. With the exception of the latter article, all European and American spirits, European wines and beer, shall be entirely free from the operation of these licenses.

10. All Cochin-Chinese arrack imported shall be sold to the licensed dealers only, Batavia arrack and Indian rum shall not be sold in smaller quantities than half a leaguer, or puncheon, nor gin, in smaller quantities than a 12 bottle case.

11. Tavern keepers retailing Batavia arrack, Indian rum or gin, or individuals requiring them for their private consumption in smaller quantities than above stated, shall require a permit from a licensed dealer, to be paid for at the rate of $\frac{1}{2}$ Spanish dollar per gallon.

12. All spirits intended for the troops shall be exempt from the operation of these licenses.

13. Any licensed dealer selling spirits of any description whatever, either to the European or native troops without a written certificate from the commanding officer, shall for every offence pay a fine of 50 Spanish dollars, $\frac{1}{2}$ to go to the informer and $\frac{1}{2}$ to government.

14. No manufacture of Keecheo, Tavern or house for the retail of spirituous liquors, shall be established either in the Military cantonment or within such reasonable limits of it as shall be pointed out by the officer commanding the troops.

15. All persons detected illicitly vending spirituous liquors, shall for every offence pay a fine of 100 dollars, the whole to go the licensed dealer giving information, or if the person giving such information be unconnected with the licenses he shall then receive $\frac{1}{3}$ rd of the fine and the remaining $\frac{2}{3}$ rd shall be equally divided amongst all the licensed dealers.

By order of the Resident,

(Signed) S. G. Bonham,

Assistant to the Resident.

Singapore, 1st July, 1823.

Conditions of Sale of the Opium Licenses.

1. There shall be five licensed opium houses and no more.
2. The licenses for the retail vend of prepared opium will be sold separately to the highest bidder for hard Spanish dollars.
3. The rent of the licenses shall be paid into the Treasury by monthly instalments on the 1st day of each month, and the licensed dealer shall procure two competent securities for the fulfilment of this condition.
4. In failure of the fulfilment of the last condition, the license will be resold by Government, the original holder and his securities making good any loss that may accrue therefrom.
5. The licenses shall be sold for nine months certain, viz, from 1st August 1823 to the 30th April 1824.
6. It shall be fully understood on the day of sale, that the sale of any one license shall not be complete, until the whole shall be declared bonâ fide disposed of.
7. The privilege conveyed in the license shall in no manner be considered to interfere with the wholesale vend of opium, such wholesale (vend to consist) of any quantities of the drug not less than one ball.
8. The houses for vending prepared opium shall be open from day-light till 9 o'clock at night only, and for every breach of this condition, the dealers shall be subject to a fine of 50 Spanish dollars, $\frac{1}{2}$ to be paid to Government and $\frac{1}{2}$ to the informer.
9. The dealers shall not be privileged to sell opium for the purpose of being consumed in any other place than the licensed houses, in less quantities than two *hoons* weight or in larger quantities than ten *hoons* weight, and every such quantity so disposed of, must be accompanied by a permit, which shall specify the period for which it is to run.
10. Persons discovered illicitly dealing either in prepared or crude opium, shall for every offence be subject to a fine of 50 Spanish dollars, the whole of which shall go to the particular dealer giving information of such illicit proceeding, and in the event of the informer not being a licensed dealer he shall receive $\frac{1}{3}$ of the fine and the remaining $\frac{2}{3}$ shall be equally divided amongst the whole of the license holders.
11. The license holders shall not sell opium or chandoo except

for ready money, and every breach of this regulation shall subject the offender to a fine of 50 Spanish dollars, half to go to the Government and half to the informer.

12. Any licensed dealer neglecting to supply a permit as specified in the 9th article, shall be subject to a fine of 10 Spanish dollars for every offence.

By order of the Resident,
(Signed) S. G. Bonham,
Assistant to the Resident.

Singapore, 1st July, 1823.

For the security of the Opium Farmers, the Resident is pleased to publish the following additional regulations:—

Persons retailing opium in lesser quantities than that of a chest, and not less than a cake of $2\frac{1}{2}$ catties, shall make application to a licensed dealer for a permit, which every licensed dealer shall be compelled to give without cost or delay, and all persons who shall sell or purchase opium without a permit shall forfeit the opium in question, and besides pay a fine of 50 Spanish dollars, the whole of such opium and fine to go to the licensed dealer giving information, or if the person be unconnected with the licenses he shall then receive $\frac{1}{3}$ of the fine, the remaining $\frac{2}{3}$ shall be equally divided amongst the whole of the licensed dealers.

2. No chest or half chest of opium shall be opened except in the presence of the Farmer, or person duly authorized by him.

By order of the Resident,
(Signed) S. G. Bonham,
Assistant to the Resident.

Singapore, 2nd August, 1823.

Notice is hereby given that there will be disposed of in presence of the Resident at the Court House, on Wednesday next, the 27th instant, at 10 o'clock in the forenoon, ten Licenses for keeping regulated gaming houses.

The detailed conditions of sale, translated into the different languages, may be seen at the Court House, and will be particularly explained on the day on which the licenses shall be disposed of.

By order of the Resident,
(Signed) S. G. Bonham,
Assistant to the Resident.

Singapore, 23rd August, 1823.

Conditions of sale of the licensed Gaming Houses.

1. There shall be ten licensed gaming houses and no more.
2. The licenses shall be sold separately to the highest bidder for hard Spanish dollars.
3. The rent of the licenses shall be paid into the treasury by monthly instalments on the 1st day of each month, and the license holder shall procure two competent securities for the fulfilment of this conditions.
4. In failure of this last condition, the license shall be resold by Government, the original holder and his securities making good any loss that may accrue therefrom.
5. The licenses shall be sold for 8 months certain, viz, from the 1st September to the 30th of April, 1824.
6. It shall be fully understood on the day of sale, that the sale of any one license shall not be considered complete until the whole licenses shall have been declared bonâ fide disposed of.
7. The gaming houses shall be closed punctually at 9 o'clock in the evening and not opened until 6 in the morning, under penalty of a fine of fifty Spanish dollars for each offence, one-half to be paid to the informer and the other half to government.
8. No gaming shall be permitted in the streets, under penalty of a fine of 50 Spanish dollars for each violation of this article, one-half to be paid to the informer, the other half to be equally divided among the license holders, excepting during the fifteen days of the Chinese holidays, and then only by an especial license from the Magistrates.
9. No gaming shall be permitted excepting for ready money. Neither bartering nor pledging of goods shall be permitted, and transgressing this regulation shall subject the offenders to a fine of 50 Spanish dollars for each offence, one-half to be paid to the informer the other half to the government.
10. No person shall be permitted to enter a gaming house armed with a kris or any other weapon, under penalty of a fine of 100 Spanish dollars for each offence, one-half to be paid to the informer the other half to government.
11. Any person or persons illicitly gaming or permitting gaming to be illicitly carried on within their houses, shall for each and every offence be fined 100 Spanish dollars, one-half to be

paid to the informer the other half to be divided among the license holders.

12. These licenses, should they be disapproved of by the Supreme Government, shall cease within 48 hours after receipt of orders to that effect from Bengal.

By order of the Resident,
(Signed) S. G. Bonham,
Assistant to the Resident.

Singapore, 23rd August, 1823.

Conditions of Sale of the Licenses for keeping a Cockpit.

The conditions for the disposal of this license shall be the same as those for the gaming licenses sold this day with the exception of the following :—

1. There shall be one licensed cockpit and no more, and this shall be situated in the Bugis kampong between the Sultan's residence and the Rocho river.

2. The cockpit shall be opened only from the hour of three o'clock in the afternoon, until six the evening.

3. The bettings shall all be in ready money and the stakes laid down before the battles are fought.

By order of the Resident,
(Signed) S. G. Bonham.
Assistant to the Resident.

Singapore, 23rd August, 1823.

Territorial Department.

To Holt Mackenzie, Esq.

Secretary to the Government.

Sir,—In a despatch of the 15th of July, I had the honor to bring to the notice of government the circumstances relating to gaming at this Settlement. Since that period a conspiracy amongst the *native* police has been discovered to defeat the regulations for its suppression and three convictions have in consequence taken place. The penalties attached to a breach of

the regulation are at the same time so extremely heavy and severe, and as it appears to me so much at variance with the habits and manners of the inhabitants, that I have felt myself by no means warranted in carrying them into effect before they receive the confirmation of the Supreme Government.

2. In the meantime the principal natives and Chinese made repeated applications for the suspension of the regulation, stating a fact, the accuracy of which could not be questioned, that many of the lower classes had quitted the Settlement on account of being deprived of a customary amusement.

3. Urged by these reasons, and feeling the impossibility, under the existing circumstances of the Settlement, of suppressing gaming, I have adopted as a temporary alternative the plan of licensing it to a certain extent and placing it under a system of controul and restriction, on the following conditions: The number of gaming houses and of the houses of play are limited—no gaming is permitted but for ready money—no person gaming is permitted to wear arms—no gaming is permitted in private houses or in the streets, the latter practice hitherto very frequent, and finally the gaming licenses are to cease in forty-eight hours after the receipt of orders to that effect from the Supreme Government.

I have &c.
(Signed) J. Crawford,
Resident.

Singapore, 18th September, 1823.

LEGEND OF THE BURMESE BUDHA CALLED GAUDAMA.*

CHAPTER 9TH (*Continued.*)

ON the following morning, Gaudama putting on his yellow Hiwaran and carrying the Patta under his arm, attended by the Rahan Ratha sallied from his house, and went according to his promise to the place of Ratha's father to receive his food. He had scarce entered the house and occupied the seat prepared for him, when the mother of the new Rahan, and she who was formerly his wife came both to pay him their respects. Budha preached to them the law, explaining in particular the three ⁶³ principal observances becoming their sex and condition. The effect of the preaching was at once immediate and irresistible, they became exempt from all sins, and attained the state of the perfect. They desired to be ranked among his disciples, and devoted themselves to his service. They were the first persons of their sex who took refuge into the three precious things, Budha, his law, and the assembly of the perfect. Gaudama and his faithful attendant having eaten the excellent and savoury food prepared for them, departed from the house and returned to the monastery.

Four young men ⁶⁴ belonging to the most illustrious families of Baranathe, and formerly connected with Ratha by the ties of intimate friendship, having heard that their friend had shaved his head and beard, put on a yellow dress and become a Rahan, said among themselves; "Our friend has withdrawn from the society of men, given up all pleasures, and has entered into the society of Rahans. There can be no doubt but the law of Wini ⁶⁵ is most excellent and sublime, and the profession of Rahan most perfect." Whereupon they came to the place their friend resided in, prostrated before him, as usual in such circumstances, and sat down at a respectful and becoming distance. Ratha took them before Budha, praying him to deliver to those who had been his friends in the world, the same instructions he had received from him. Gaudama willingly assented to his request and forthwith began to explain to them the nature and abundance of merits, derived from almsgiving. He initiated them into the know-

* Continued from p. 185, Vol. 7th.

ledge of the chief precepts and observances of the law. These young hearers received with a cheerful heart his instructions and felt within themselves an unknown power, dissolving gradually all the ties that had hitherto retained them in the world of passions. Delighted at remarking so good dispositions in these young men, Gaudama explained to them the higher doctrine of the four great and fundamental truths which lead to perfection. When the preaching was over, they applied for and obtained the dignity of Rahans. There were at that time eleven Rahandas in the whole world.

Fifty other young men of good descent, who had been the companions of Ratha, while in the world, having heard that their friend had left the world, put on the yellow garb and become Rahan, said to each other: "The law which our friend has listened to may not be a bad one, the profession he has entered into may not be as despicable as many people are wont to assert." They resolved to judge for themselves and to be eye witnesses to all that had been said on the subject. They set out for the monastery Ratha was living in, came into his presence, paid their respects to him, and stopped at a proper distance in a respectful posture. Ratha led them to his great teacher, humbly craving for his former friends the same favor he had done to him. Budha graciously assented to the request, and imparted instruction to his young hearers with such an happy result, that they instantly applied for admittance to the dignity of Rahans. This favor was granted to them. The total number of Rahandas was thereby raised to sixty one.

On a certain day Gaudama called his disciples into his presence⁶⁶ and said to them: "Beloved Rahans, I am exempt from the five great passions which like an immense net encompass men and Nats. You, too, owing to the instructions you have received from me, enjoy the same glorious privilege. There is now incumbent on us a great duty, that of labouring effectually in behalf of men and Nats, and procuring to them the invaluable blessing of the deliverance. To the end of securing more effectually the success of such an undertaking let us part with each other and proceed in various and opposite directions, so that not two of us should follow up the same way. Go ye now and preach the most excellent law, expounding every point thereof and unfolding it with care

and attention in all its bearings and particulars. Explain the beginning, middle and end of the law to all men without exception; let everything respecting it be made publicly known and brought to the broad daylight. Show now to men and Nats the way leading to the practice of the pure and meritorious works. You will meet, doubtless, with a great number of mortals, not as yet hopelessly given up to their passions, and who will avail themselves of your preaching for reconquering their hitherto forfeited liberty, and freeing themselves from their tyrannical yoke. For my own part, I will direct my course towards the village of Thena situated in the vicinity of the solitude of Ooroowela."

At that time the wicked Nat Manh came into the presence of Budha and tempted him in the following manner. "Men and Nats," said he, "have the five senses; through those five senses passions act upon them and encompassing their whole being, finally keep them bound up with the chains of an irresistible slavery. As to you, Rahan, you are not an exception to that universal condition and you have not yet outstepped the boundaries of my empire." Phra replied: "O vile and wretched Nat! I am well acquainted with the passions men and Nats are obedient to. But I have freed myself from them all and have thereby placed myself without the pale of your empire, you are at last vanquished and conquered." Manh yet undismayed replied; "O Rahan, you may be possessed with the power of flying through the air, but even in that condition, those passions which are inherent to the nature of mortal beings will accompany you, so that you cannot flatter yourself of living without the boundaries of my empire." Phra retorted: "O wicked Nat, concupiscence and all other passions I have stifled to death in me, so that you are at last conquered." Manh, the most wretched among the wretched, was compelled to confess with a broken heart, that Phra had conquered him and he instantly vanished away.

Full of fervour in preaching the law, the Rahans saw themselves surrounded with crowds of converts, who asked for the dignity of Rahan. They poured in daily from all parts into the presence of Budha, to receive at his hands the much longed for high dignity. ⁶⁷ Budha said to them:—"Beloved Rahans it is painful and troublesome both to you and to those who desire to be admitted into our holy brotherhood to come from such a great distance to me. I now

give to you the power of conferring the dignity of Patzin and Rahan on those whom you may deem worthy to receive it. This is the summary way you will have to follow on such occasions. Every candidate shall have his hair and beard shaved, and shall be provided with the Hiwaran of yellow color. These preliminaries being arranged, the candidate with the extremities of the Kowot thrown over his shoulders, shall place himself in a squatting position, his joined hands raised to the forehead, repeating three times:— I adhere to Budha, to the law, and to the assembly of the perfect.”

Gaudama assembling again round him the Rahans, said to them:— “Beloved Rahans, it is owing to my wisdom, aided by constant reflexion and meditation, that I have at last reached the incomparable state of Arahatapho; endeavour ye all to follow my example and arrive at last to the same state of excellence and perfection.”

The vile and wretched Nat Manh appeared again before Budha striving to tempt him in the same manner as before. Budha discovering the snares laid down by the tempter, returned the same reply. Finding himself discovered, Manh vanished from his presence.

Having spent his first lent⁶⁸ in the solitude of Migadawon, Phra shaped his course in the direction of the forest of Ooroowela. On his way to that place, he stopped for a while in a jungle, and sat under a tree to enjoy some rest under its cool shade. At that time thirty young noblemen had come to the jungle to enjoy themselves. Each of them had brought his wife, with the exception of one, who, having no wife, was accompanied by a harlot. During the night the harlot rose up unperceived, picked up the best articles belonging to the parties, and taking them with her, took to her heels through the dense forest. In the morning, the thirty young noblemen rising up soon perceived the havock made in the richest articles of their dress, and set out in search of her whom they suspected to have done the mischief. They came by chance to the spot where Gaudama was sitting in a cross-legged position, and inquired from him whether he had seen a woman passing by. Budha said to them: “What is the best and most advantageous in your opinion, to go in search of yourselves or in search of a woman?” they replied, of course it is preferable to look after ourselves. “If so,” replied Budha, “stay with me for a while, I will preach my

law to you, and with its help you will arrive to the knowledge of self, and thence to perfection." They cheerfully assented to his request, listened attentively to his instructions, and obtained the state of perfect, but in various degrees, according to their respective dispositions. They gave up the habit of drunkenness they had hitherto indulged in, and persevered in the five great precepts.

[It is to be remarked, adds the Burmese translator, that this happy result was secured to the fortunate hearers, by the influence of good works, made during former existences. ⁶⁹]

Gaudama, having so happily completed the conversion of those young noblemen rose up and continued his journey in the direction of the jungle of Ooroowela. At that time there were three distinguished and far famed teachers that presided over a vast number of Rathees or disciples leading an ascetic life. They were named Oorowela Kathaba, Nadi Kathaba and Gaya Kathaba. The first had under him five hundred disciples, the second three hundred and the third two hundred. Budha went up to the monastery of Oorowela Kathaba, and said to him, "I carry but a few articles with me, and need but a small place to rest in; I beg of you to be allowed to spend the night only in your cook-room." Kathaba answered: "Since you have so few things with you, I willingly allow you to accommodate yourself in the best way you can in the cook-room. But I must inform you that the Naga guardian of the place is an animal of a very wicked temper, powerfully strong and having a most deadly venom." "I fear not the Naga," replied Budha, "I am well satisfied with your allowing me a place in the cook-room." Whereupon he entered into the cook-room, sat down in a cross-legged position, and keeping his body in an erect position, remained absorbed as it were, in the deepest contemplation. The Naga soon appeared, and irritated at seeing that a stranger presumed to remain in a place committed to his care, resolved to drive out the intruder. He began to vomit clouds of smoke which he directed to the face of the stranger. Budha said to himself, "I will do no harm to that Naga, I will leave intact his skin, flesh and bones, but I will conquer him with the very same weapons he uses against me." Whereupon he emitted by his own power, such a volume of thick smoke as soon to silence his adversary and oblige him to have recourse to more

effectual means of attack. He vomited out burning flames. Phra opposed flames far more active and destructive than those of the Naga. They shone forth with such an uncommon brilliancy as to attract a number of Rathees, who stood motionless admiring the beautiful countenance of Budha and wondering at his matchless power. The Naga vanquished, gave up the contest, and left to Budha undisputed the possession of the cook-room during the whole night. In the morning, opening his Patta, Phra thrust in the terrified Naga and brought him to Oorowela Kathaba, who surprised at the power of the stranger said: "This Rahanda cannot as yet be compared to me." He desired him to stay in his monastery, promising to supply him with food as long as he would be with him. Phra accepted the proffered invitation and fixed his residence in the midst of a grove little distant from the cell of Kathaba. Whilst he was there, four chiefs of Nats of the seat of Hodoumaritz, came at midnight to the spot where rested Phra. They were very handsome, and a brilliant hue encompassing their bodies filled the grove with a resplendent light. Kathaba surprised, came to Budha and said to him: "Great Rahan, the hour of taking your food is at hand; your rice is ready, come and eat it. How is it that at midnight, there was such an uncommon splendour? One would have thought that the whole forest in the neighbourhood was lined with immense fires spreading a blaze of light." Phra answering, said: "This wonder was caused by the presence of four chiefs of Nats that came to visit me and hear my preachings." Kathaba said to himself: "Great indeed must be the virtue of this Rahan, since Nats came to see him and acknowledge him for their teacher. He is not yet however my equal." Budha ate his rice and went back to the same place.

On another occasion, in the middle of the night, the chief of Thagias came to the grove of Budha, and by his power, caused a flood of light, similar to that produced by a thousand lighted fires, to pour its effulgent rays in every direction. On the morning Kathaba went to the great Rahan inviting him to come and eat his rice. Meanwhile he asked him the reason of the wonderful light that had been kept up about from midnight until morning, which surpassed in brilliancy that which had been seen on a former occasion. Phra told him that he had been visited by the

chief of Thagias who came for the purpose of hearing his instructions. Kathaba thought within himself; great indeed is the glory and dignity of this Rahan, but he is not as yet a Rahanda. Phra ate his food and continued to stay in the same grove.

On another occasion, at the same late hour, Phra received the visit of the chief of Brahmas. The flood of light that was emitted by his body surpassed in effulgent splendor all that had been seen. Kathaba came as usual in the morning to invite the great Rahan to come and take his food, requesting him, at the same time to inform him of the cause of the great wonder that had just taken place. Phra told him that the chief of Brahmas had waited upon him to listen to his preachings. Kathaba wondered the more at the dignity of this great Rahan, who attracted round him so eminent a visitor—but he said within himself: this Rahan is not yet a Rahanda that can be compared to me. Phra partook of his food and continued his stay in the same grove.

On a certain day, the people of the country had prepared offerings on a large scale to be presented to Kathaba. On hearing this welcome news, the Rathee thought within himself as follows: "The people are disposing everything for making large offerings to me. It is as well this Rahan should not be present on the occasion. He might make a display of his power in the presence of the multitude who, taken up with admiration for his person, would make great offerings to him, whilst I would see my own decrease in a comparative proportion. Tomorrow, I will do in such a way as to prevent the great Rahan from being present." Budha discovered at a glance all that was going on in Kathaba's mind. Unwilling to offer any annoyance to his host, he carried himself to the island of Ootoogara where he collected his meal which he came to eat on the banks of the lake Anawadat. He spent here the whole day, and by his miraculous power, he was back in his grove at an early hour on the following day. The Rathee came as usual to invite him to partake of his meal that was ready and inquired from him why he had not made his appearance on the day previous. Budha without the least emotion that would betray an angry feeling, related to Kathaba all that had passed in his mind, and informed him of the place that he had been to. Kathaba astonished at what he heard said to himself; the know-

ledge of this Rahan is transcendent indeed, since he is even acquainted with the thoughts of my mind—his power too is wonderfully great; but withal he is not as yet a Rahanda comparable to me. Budha having eaten his meal, withdrew to his grove.

On a certain day, Budha wished to wash his dress. A Thagia knowing the thought that occupied his mind, dug a small square tank, and approaching him, respectfully invited him to wash herein his Hiwaran. He then thought, where shall I find a stone to rub it upon? The Thagia having brought a stone said to him—illustrious Phra, here is a stone to rub your Hiwaran on. He thought again where is a proper place to dry it up? The Nat that watched the tree Yekadat caused it to bend its branches, and said:—my lord, here is a fit place to hang up your Hiwaran. He thought again where is a fit spot to extend my clothes upon? The chief of Thagias brought a large and well polished stone and said O illustrious Phra, here is a fit place to lay your Hiwaran upon. On the morning Kathaba repaired as usual to his guest's place to invite him to take his meal. Surprised at what he perceived, he said to Budha, "O Rahan, formerly there were here neither tank, nor stone, how is it that they are here now? Have you dug that tank and carried hither such a large stone? how is it, again, that the tree Yekadat is now bending down its branches?" Phra related then to the Rathee all that had happened, informing him, that the chief of Thagias and one Nat had done all those work for him, and ministered to all his wants. Kathaba more than before wondered at the great virtue and surpassing excellency of the great Rahan, but he persisted in his former opinion that the great Rahan was not a Rahanda that could equal him. Budha having taken his meal, returned to his grove.

On another occasion the Rathee went to Budha's place, to invite him to come and partake of his meal. "Very well," said Budha, "I have a small business to do now, go before hand, and I will follow in a few moments." Whereupon Kathaba went back to his cell. As to Phra he went to pluck a fruit from the jambu tree, and arrived at the eating place before Kathaba could reach it. The Rathee on arriving thither, was quite surprised to find Phra already waiting him. "How is this," said he with an unfeigned feeling of surprise, "and by what way did you come and contrive to arrive here

before me." Phra said to him: "After your departure, I plucked one fruit from the jambu tree, and yet I have reached this spot sooner than you. Here is the fruit I have brought. It is as full of flavor as it is beautiful, allow me to present you with it, that you may eat it." "Oh no, great Rahan, replied the Rathee, it is not becoming that I should eat it but rather keep it for yourself." He thought within himself, wonderful is indeed the power and eminent excellency of that great Rahan; but he is not as yet a Rahan that can be assimilated to me. Phra ate his rice and returned to his grove.

On another day, Phra gave a first proof of his miraculous power by bringing to Kathaba one mango fruit plucked from a mango tree growing near the jambu tree, and so went on for several days bringing fruits that grew at the extremity of the island. On another day, Phra ascended to the seat of Tawadeintha, and brought therefrom a beautiful waterlily, and yet arrived to the place where his meal was ready, before Kathaba himself. The latter quite amazed at seeing a flower from the Nat country, thought within himself, wonderful indeed is the power of that great Rahan who has brought here from the seat of Nats a beautiful lily in such a short space of time, but he is not yet equal to me.

On a certain day, the Rathees were busy in splitting fire-wood. They got a large log of wood upon which their united efforts could make no impression. Kathaba thought within himself; the great Rahan is gifted with mighty power; let us try him on this occasion. He desired Gaudama to split the hard log. Gaudama split it in a moment in five hundred pieces. The Rathees then tried to light up the fuel, but they could not succeed. Kathaba requested his guest to come to their assistance. In an instant the five hundred pieces were set in a blaze, and presented the terrifying sight of five hundred large fires. The Rathees begged the great Rahan to extinguish those fires which threatened a general conflagration, and their request was instantaneously granted, the five hundred fires were extinguished.

During the cold season in the months of January and February, when there falls a heavy cold dew, the Rathees amused themselves in plunging and swimming in the river Nerizara. Phra caused five hundred fires to blaze out on the banks of the river.

The Rathees coming out of the stream, warmed themselves by the side of those fires. They all wondered at the astonishing power of the great Rahan. But Kathaba persisted in saying that he was not a Rahanda like him.

On a certain day, a great rain poured in as a torrent, so that the water overflowed all the country, but it did not reach the spot Gaudama stood upon. He thought within himself; it is good that I should create a beautiful dry road in the midst of the water. He did so, and walked on the dry road, and clouds of dust rose in the air. Kathaba much concerned regarding the fate of his guest, took a boat and with the assistance of his disciples pulled in the direction of Budha's grove, but what was their surprise, when reaching the spot, they found instead of water, a firm dry road, and Budha calmly walking. "Is it you great Rahan, cried Kathaba, whom we see here?" "Yes, replied Gaudama, it is I indeed." He had scarcely returned this answer, when he rose in the air and stood for a while above the boat. Kathaba thought, great indeed are the perfections and attainments of the great Rahan, since water even cannot harm him, but he is not yet a Rahanda like me. Phra who knew what was taking place in Kathaba's mind, said to himself, there is a long time that the Rathee is thinking within himself, this Rahan is great, but I am still greater than he; it is good now that I should inspire him with fear and surprise. Addressing Kathaba, he said:—"Rathee you are not a Rahanda, who has arrived to the perfection of Arahant, I can do things that you cannot do, you are not therefore a Rahanda." Astonished at such an unexpected declaration, Kathaba humbled himself, fell on his knees and prostrated at the feet of Budha, saying: "Illustrious Phra I wish to become Rahan under your direction." Phra replied, "Kathaba you have under you five hundred Rathees, go and inform them of all that has happened." Whereupon Kathaba went to the place where the Rathees had assembled, and said to them: "I wish to place myself under the direction of the great Rahan." The five hundred Rathees told him that they were willing to follow his example, since he had been hitherto to them such an excellent teacher. They rose up and collecting their utensils, such as the hairy girdle, the honey filtre, &c., they flung them into the river, came and prostrating at the feet of Budha they craved admittance to the dignity of Rahans.

Nadi Kathaba seeing the utensils floating on the water, and carried down by the stream, called his followers and said to them:—"Some misfortune may have befallen my elder brother; let us go and see what has happened." They were no sooner arrived than Kathaba related to them all that had just taken place. Nadi Kathaba went forthwith to Budha's cell attended by all his disciples; falling all at the feet of Phra, they declared their readiness to become his disciples, and applied for the dignity of Rahan. Gara Kathaba who lived a little below the place of Nadi Kathaba, seeing on the surface of the water the utensils of both his brothers' followers floating in the direction of the stream; hastened with his two hundred disciples to the place of Ooroowela Kathaba. On his being informed of all that had occurred, he and his followers threw themselves at Gaudama's feet, praying for admittance into the order of Rahans. They were all admitted. The conversion of Ooroowela Kathaba⁷⁰ was brought about by the display on the part of Budha of no less than three thousand five hundred and sixty wonders.

NOTES.

63. From the perusal of this Legend, it can be remarked that Budha in the course of his preachings, withheld from no one the knowledge of his doctrine, but on the contrary, aimed at popularizing it in every possible way. In this respect he widely differed from the Brahmins who enveloped in a mysterious obscurity their tenets, and even in that state of semi-incomprehensibility, condescended to offer them to the consideration of but a few selected adepts. Our Budha followed a quite opposite course. He preached to all without exception. On this occasion we see him engaged in explaining to the mother and wife of Ratha, duties truly becoming their sex and position. He warned them against the danger of speaking too much, or speaking hastily and with a tone of dissatisfaction. He desired them to be always cool and moderate in their conversation, and to take a pleasure in conversing on religious topics, such as the practice of the ten great duties, the merits of almsgiving and on the other precepts of the law. He showed to them the unbecomingness of inconsistency in speaking and finally concluded by exhorting them to allow wisdom to guide them in the right use of the faculty of speech. Every one will agree in this, that the lecture was a very appropriate one, and would suit as well women of our days as those of Budha's times.

It is not easy to determine whether these two female converts became Rahanesses by forsaking the world and devoting all their time to religious observances, or simply believed in Budha's doctrines and continued to live in the world. The Burmese translator makes use of expressions liable to both interpretations. I feel rather inclined to give preference to the first supposition, since it is remarked that they were the two first female disciples of Budha. Such a remark would have hardly been made if these two ladies had simply been hearers of Budha or members of the assembly of the last class.

The great framer of the Budhistic disciplinary regulations has also laid down rules for the institution and management of an order of female devotees, to match, as it were, with that of the Talapoins. Hence in almost all countries where Budhism is flourishing, there are to be met houses and monasteries which are the abodes of those pious women who emulate Rahans in the strict observance of practices of the highest order. Their dress except the color, which is white, is quite similar

to that of Talapoins; their head is shaved, they live in strict continence as long as they continue to wear the dress of their profession. They have certain formulas of prayers to repeat every day several times. Their diet is the same as that of Talapoins; they are forbidden to take any food after midday. I am not aware that they render any service to society in the way of keeping schools for the benefit of female children. They live on alms freely bestowed on them by their co-religionists. The Burmese honor them with the title *Mathi-la-shing*, which means ladies of the religious duties. The order of those female devotees is much on the decline; the inmates of houses are but few, enjoying a very small share of public esteem and respect. They are generally looked upon with feelings akin to those entertained towards beggars.

In the *Wini* or book of discipline the relations that are allowed to subsist between the two orders of male and female devotees are minutely described and clearly laid down, so as to prevent the evils that might result from a familiar and unnecessary intercourse. Thoroughly acquainted with the weakest side of human nature, the author of the *Wini* has legislated on that subject with the utmost circumspection. He allows rather aged *Rahans* to be the spiritual advisers of the *Rahanesses*, but he denies them the leave of ever going to their houses under what pretext soever. When the latter want to hear preaching or receive some advice from the *Rahans*, they resort in broad daylight to the monastery, are permitted to stay in a large hall, open to the public, at a considerable distance from him whom they desire to consult. Having briefly and with becoming reverence made known the object of their visit, and received some spiritual instructions, they immediately return to their own place.

64. The conversion of *Ratha* and of his young friends shows to us distinctly the tendency of *Budha's* preachings and their effect over those who believe in him. *Ratha* is represented as a young worldly minded man, who in the midst of riches, has denied to himself no kind of pleasure. He feels that the enjoyments he was so fond of, can in no manner satisfy the cravings of his heart, he is disgusted at them, and resolves to withdraw into solitude with the intention of placing himself under the direction of some eminent teacher, and learn from him the way to happiness. He hopes that the study of philosophy will lead him to true wisdom, and the acquirement of the means that may render him happy. He luckily falls in with *Budha*, who shows that senses are the instruments through which passions act upon and tyrannize over the soul, by keeping it in a painful subjection to matter. He points out to him the necessity of freeing himself from their control. This principle of Buddhism, which aims at disengaging the soul from matter, isolating it from all that proves a burden to it, and delivering it from the tyrannical yoke of concupiscence, is in itself perfectly correct, but, carried beyond its legitimate consequences, it becomes false and absurd. According to *Budhists*, the soul disentangled from all that exists, finds itself alone without any object it can adhere to: folding itself up into its own being, it remains into a state of internal contemplation, destitute alike of all feelings of pleasure and satisfaction. This doctrine was known in the time of *Budha* as far as the principle is concerned. The *Rathees* and other sages in those days, upheld it both in theory and practice, but on the consequences the originator of Buddhism came at issue with his contemporaries and struck a new path in the boundless field of speculative theories.

65. The *Wini* is one of the great divisions of *Budhistic* sacred writings. The *Pittagat* or collection of all the Scriptures, is divided into three parts,—the *Thouts* containing the preachings of *Budha*, the *Wini* or book of the discipline, and the *Abidama* or the book of *Metaphysics*. That conjunction is supposed to embody the doctrines of *Budha* in a complete manner. These books have not been written by *Budha* himself, since it is said of him that he never wrote down anything. The first *Budhistic* compositions were certainly written by the disciples of *Phra*, or their immediate successors. But there arose some disputes among the followers of *Budha*, as to the genuineness of the doctrines contained in the various writings published by the chief disciples. To settle the controversy, an assembly or council of the most influential members of the *Budhistic* creed, was held nearly one hundred years after *Gaudama's* demise. The writings regarded as spurious were set aside and those purporting to contain the pure doctrines of *Phra* were collected into one body and formed, as it were, the canon of sacred books. The matter so far was settled for the time being, but the human mind when unrestrained by authority acted in those days with the same result as it does in our own times. Various and different were the constructions put on the same texts, by the

expounders of the Buddhist law. All parties admitted the same books, but they dissented from each other in the interpretation. Some of the books hitherto regarded as sacred, were altered or rejected altogether, to make room for the works of new doctors. A great confusion prevailed to such an extent, that an hundred years later a second council was assembled for determining the authenticity of the real and genuine writings. A new compilation was made and approved of by the assembly. The evil was remedied; but the same causes that exercised so baneful an influence previously to the time of the second council, soon worked again and produced a similar result. Two hundred years later, that is to say, about four hundred years after the death of Gaudama, a third council was assembled. The books compiled by the second council were revised and apparently much abridged and with the sanction of the assembled fathers, a new canon of scriptures was issued. The Pittakat in its present shape is regarded as the work of this last assembly. All the books are written in the Pali or Magatha language, they were translated into Burmese by Roudhagautha, who went to Ceylon in the 8th or 9th century after our era, and brought back to his country the whole collection in the vernacular tongue of his countrymen.

66. Budha having trained up his disciples to the knowledge of his doctrines and practice of his ordinances, elevates them to the dignity of preachers, or to be more correct, makes them fellow labourers in the arduous task of imparting to mankind the wholesome knowledge of saving truths. An unbounded field is opened before him, the number of beings who are designed to partake of the blessings of his doctrines, is incalculably great. His own efforts will not prove adequate to the difficulties such mighty undertakings are encompassed with: he adjoins to himself fervent disciples, that have reached all but the farthest limit of perfection, by the thorough control they have obtained over their passions: he considers them as instruments well fitted for carrying into execution his benevolent designs, and entrusts them with the mission he has entered upon. By adopting such a step, the wise founder of Buddhism establishes a regular order of men whom he commissions to go and preach to all living creatures the doctrines they have learnt from him. The commission he imparted to them, was evidently to go down to their successors in the same office. He may now die, but he is sure that the work he has begun, shall be carried on with zeal and devotedness, by men who have renounced the world and given up all sorts of enjoyments that they might engage in the great undertaking with a heart perfectly disentangled from all ties and impediments of any description.

In entrusting his disciples with the important duty of teaching mankind, Budha obeying this impulse of his universal charity desires them to go all over the world and preach the truth to all mortals. He distinctly charges them to announce openly and unreservedly all that they have heard from him. In these instructions the plan of Budha is clearly laid down, and the features of the mission he assumes distinctly delineated. His object is to spread his doctrines all over the world and to bring all beings under his moral sway. He makes no distinction between man and man, nation and nation. Though by birth belonging to a high caste, he disregards at once those worldly barriers whereby men are separated from each other and acknowledges no dignity but that which is conferred by virtue. Bold indeed was the step that he took in a country where the distinction of caste is so deeply rooted in the habits of the people that all human efforts have hitherto proved abortive in destroying it. It has already been hinted in a foregoing note that Gaudama placed himself on a new ground, in opposition to the Brahminical doctrines. He doubtless, cautiously avoided to wound directly the feelings of his antagonists but at the same time, he adroitly sowed the seed of a mighty revolution that was to change, if left to grow freely, the face of the Indian Peninsula. His doctrine were two characteristics that were to distinguish it essentially from that of his adversaries, it was popular and universal, whereas that of his opponents was wrapped up in a mysterious obscurity, and unfolded completely but to a privileged caste. Another great difference between the two systems in this; Budha paid little attention to the dogmatical portion of religion, but laid the greatest stress on morals. The dogmas are few and little insisted on. He aimed at correcting the vices of the heart, but little attended to redress the errors of the mind.

67. In these new instructions delivered to the Rahans, Budha gives them the power of receiving into the ranks of the assembly, those of their converts who would prove foremost in understanding the law and observing its highest practices. He

empowers them to confer on others the dignity of Rahans, and admit to the various steps that lead to that uppermost one. To observe uniformity in the reception of candidates to the various orders, Budha laid down a number of regulations embodied in the Kambawa, or book used as a sort of Ritual on the days of admission of candidates to the dignity of Patzins and Rahans. The contents of this small but interesting work may be seen in the notice on the order of Talapins or Buddhist Monks, published about two years ago in this journal. That the reader may have an idea of the general purpose and object of these regulations I will draw a slight outline of them. The candidate who seeks for admission among the members of the order, has to appear before an assembly of Rahans presided over by a dignitary. He must be provided with the dress of the Order, and a patta or the pot of mendicant. He is presented to the assembly by a Rahan, upon whom devolves the important duty of instructing him on all that regards the profession he is about to embrace, and lead him throughout the ordeal of the ceremony. He is solemnly interrogated before the assembly on the several defects and impediments incapacitating any individual for admission into the order. On his declaring that he is free from such impediments, he is with the consent of the assembled fathers promoted to the rank of Patzin. But ere he be allowed to take his place among his brethren, he is instructed on the four principal duties he will have to observe, and warned against the four capital sins, the committing of which would deprive him *de facto* of his high and holy character, and cause his expulsion from the society.

It is supposed that the candidate previous to his making application for obtaining the dignity of Rahan has qualified himself by studying and a good life, for admittance among the perfect. By surrounding with a display of ceremonies the admission of candidates into the ranks of the order, the shrewd framer of those regulations intended to encompass the whole body with a halo of dignity and sacredness, and at the same time to provide, as far as human wisdom allows, against the reception of unworthy postulants.

Hitherto Budha had reserved to himself alone the power of elevating hearers or converts to the dignity of Rahans; now he hands down to his disciples that power and bids them to use it, as they had seen him to do in behalf of those whom they deem worthy applicants. He has established a Society and infuses into it all the elements necessary for keeping it up hereafter, and securing its existence and permanency. He sets up a kind of ecclesiastical hierarchy which is to be perpetuated during the ages to come, by the same means and power that brought it into existence.

Having put such a power into the hands of his disciples, Budha very properly exhorts them to emulate him in his efforts for becoming perfect. He sets himself as a pattern of perfection and bids them all to imitate the example he places before them. He shows briefly to them by what means he has attained the state of Arahato, and stimulates them to the adopting of similar means. The word Arahato is composed of two words—Arahat, which means perfect and pho or phoso as the orthography indicates, which means reward, merit. The state of Arahato is that in which a man enjoys the merits or reward of perfection. It is used often in opposition to the word Arahato-Migato which signifies the ways or roads leading to perfection.

68. I have translated by lent the Burmese expression Wathso, which is the Pali term Wasa burmanised. The word lent which has been adopted is designed to express not the real meaning of Wasa but to convey to the reader's mind the idea of a time devoted to religious observances. Wasa means a season, the rainy season in those parts of the Peninsula where Budha was residing beginning at the full moon of July and ending in the full moon of November. During that period the communications between villages and towns are difficult, if not impossible. The religious mendicants were allowed in former times, very likely from the very days of Budha, to retire into the houses of friends and supporters, from which they went out occasionally for begging their food. In the beginning those who were admitted in the society did not live in community as it has hereafter been done in those countries where Buddhism has been for a long time in a flourishing condition. They were allowed to withdraw into solitude and lead an ascetic life, or to travel from one place to another, for preaching the law and making converts. This work could not be well done during the rainy season. Hence the disciples, when as yet in small number, gathered round their master during that period to hear instructions from him, and practise virtue under his immediate superintendence.

They lived with him during all the time the rainy season lasted. This was called to spend the season. In the course of this legend, the same expression is often met with. It is said of Budha that he spent a season in such place, another in another place, to indicate that he staid in one place during the rainy season which precluded the possibility of doing the duties of itinerant preacher.

When the religious order became regularly constituted, and the basis it was to stand on, was fairly laid down, the ever increasing number of members made them feel the want of secluded places, where they could live in community and at the same time quite retired from the world. Houses or monasteries were erected for receiving the pious Rahans. The inmates of those dwellings lived under the direction of a superior, devoting their time to study, meditation and the observances of the law. They were allowed to go out in the morning very early to beg food they wanted for the day. Such is the state the recluses are living in up to our own time, in Burmah, Ceylon, Thibet, Siam and in the other countries where Buddhism has been firmly established.

The keeping of the season in Burmah is as follows. On the days of the new and full moon, crowds of people resort to the pagodas and spend the night in the bungalows erected chiefly for that purpose in their immediate vicinity. Women occupy bungalows separated from those of men. It must be admitted that there, as in churches, they far out number men. On such occasions, religion appears to be rather the pretext than the real object of that assembly. With the exception of old men and women who are heard to converse on religious topics, and repeat some parts of the law, or recite some praises in honor of Budha, the others seem to care very little for religion. The younger portion of the weaker sex freely indulge in the pleasure of conversation. It is quite a treat to them to have such a fine opportunity of giving a full scope to their talkative powers. During that season the pious faithful are charitably inclined to bestow alms on the Rahans. All the necessities of life pour with abundance and profusion into the monasteries. Besides alms giving and resorting to the Pagodas some fervent laymen practice abstinence and fastings to a certain extent: these however, are but few. During that period, the Buddhist recluses are often invited to go to certain places, prepared for the purpose, to preach the law and receive alms—crowds of hearers are gathered thither on such occasions. Talapoins are generally seated on an elevated platform, facing the congregation; they keep their large fans before the face through modesty, to save themselves from the danger of looking on some tempting object. They repeat in chorus certain passages of the life of Budha, enumerate the five great precepts and other observances and practices of the law. The whole preaching is generally going on in Pali, that is to say, in a language unknown to the congregation. When they have done their duty, they withdraw, followed by a great number of their disciples, carrying back to the monasteries all the offerings made by the faithful. It happens also, although but seldom in our days, that some fervent recluses withdraw during the whole or a part of the lent season, into solitary places, living by themselves, and devoting all their time to reading the books of the law, and meditating on the most important points and maxims of religion.

60. The remarks of the Burmese translator affords me the opportunity of explaining one of the leading tenets of the Budhistic creed. All beings in this world are submitted to the double influence of their merits and demerits. The good influence predominates when the sum of merits surpasses that of demerits, and it is superseded by the latter when the contrary takes place. This principle once admitted, Budhists explain the good or evil that befalls every individual in any state of existence soever. Is a man dead, he is attended on his way to another state of being both by his merits and demerits, who like two inseparable companions follow him whithersoever he goes. Should the sum of demerits prove greater he is forced into hell, or into some other state of punishment to bear sufferings proportionately to his offences until he has fully paid off his debt, or to speak the language of Budhists, until the sum of his demerits be quite exhausted. If on the contrary, at the moment of his death, the influence of merits be the strongest, he is directed into a state of happiness, pleasures and enjoyment, say in one of the seats of Nats or Brahmas, and remains there as long as lasts the action of the good influence. When it is over, he is coming again into the abode of man or in a state of probation when he has to labor anew for amassing new and greater merits, that will hereafter entitle him to a higher reward, than the one he had previously occupied. From the foregoing observations it is evident that the idea of

a Supreme Being rewarding the good and punishing the wicked, is carefully excluded and all foreign interference on this subject entirely done away with. Another conclusion flowing from the same source, is that there is no eternity of reward or punishment, but both last for a longer or shorter period in proportion to the sum of merits and demerits and consequently to the power of each respective influence.

It may be asked what becomes of the sum of demerits and its consequent evil influence whilst the superior good influence prevails? The sum of demerits remains all the while entire and undiminished, the operation of the evil influence is suspended and has no power whatever, its own being checked by a greater one. But the sum of merits being exhausted and its inherent action at an end, the opposite one is set at liberty, and acts on the individual proportionately to its own strength and lasts until it is all exhausted. As man can never be without some merits or demerits, good or bad deeds, he must be either in a state of reward or punishment; this is, if I may say so, the mainspring that moves all beings into the whirlpool of countless existences wherein he meets happiness or unhappiness according to his deserts. The being that tends strongly and perseverantly through his various existences towards perfection, weakens gradually and finally destroys in himself the law of demerits; he ascends steadily the steps of the ladder of perfection by the practice of the highest virtues. Having reached its summit, there is no more reason for his going through other existences, and he steps at once into the state of Niban.

With the above principle, Buddhists account for all the various phasis of human existence. Is a child born from rich, great and distinguished parents? Does he become a wealthy and powerful man? Does he become a king or a nobleman? &c.—He is indebted for all that to merits acquired during former existences. Is another child born in a low, poor and wretched condition? Is he born with bodily or intellectual defects and imperfections &c. &c? His former demerits are the principle and cause of all his subsequent misfortunes.

The doctrine of merits and demerits and of their concomitant influences has been fully illustrated in the person of Budha himself during his former existences. He said of himself to his disciples that he had passed with various fortune, through the range of the animal kingdom, from the dove to the elephant: that being man he had been often into hell and in various positions of riches and poverty, greatness and meanness, until by his mighty efforts, he at last forced himself from all evil influence and reached his present state of perfection. He is supposed to have related to his disciples, on different occasions, five hundred and ten of his former existences.

70. It has been asserted in a former note that the preachings of Budha were accompanied with miracles for conferring an additional strength and an irresistible evidence to his doctrines. This assertion is fully corroborated by all the particulars attending the conversion of the three Kathabas and their disciples. On this occasion Budha met with the greatest amount of stubborn resistance from the part of Ooroowela Kathaba. There is no doubt but our great preacher resorted to every means of persuasion to carry conviction to the mind of his distinguished hearer. He had, however, to deal with a man full of his own merits and excellence who thought himself far superior to every one else: his best arguments proved powerless before a self conceited individual who was used to give and not to receive instruction, who was enjoying a far famed celebrity. Budha was compelled to resort to his unbounded power of working miracles, and with it overcame at last the obstinate and blind resistance of the proud Rathee. No conquest had ever been so dearly bought; but it proved well worth the extraordinary efforts made to obtain it. Kathaba became one of the most staunch adherents of Budha, and one of the most fervent disciples, who labored hard for the propagation of Buddhism. He is the most celebrated in all Budhistic works, and to his name is ever prefixed the distinguished epithet of Maha, which means great.

POLITICAL AND COMMERCIAL CONSIDERATIONS RELATIVE TO
THE MALAYAN PENINSULA AND THE BRITISH SETTLE-
MENTS IN THE STRAITS OF MALACCA. *

CONSIDERATIONS ON THE SIAMESE CONQUEST OF QUEDAH AND PERAK.

BUT let us now turn our attention to the extremely difficult and unpleasant situation in which Captain Light found himself, who, there can be no doubt, promised more than he was permitted by the superior and controlling authorities to perform. In his letter, dated 18th June 1787, he says, "I have supplied the king of Quedah with twenty chests of opium, at the price of 250 Spanish dollars per chest, which I do not expect he will pay until the Company have come to some settlement with him." In truth, Mr. Light felt his own honour at stake; he had engaged for more than he could fulfil, and he was glad to pacify the king in any way he could. This is a humiliating confession he is obliged to make,— "I do not expect he will pay for it until the Company have come to some settlement with him" What settlement? If, as we are told, the Island was a free grant, why should Mr. Light insist upon our obligation to come to a settlement, unless he felt that he had given a solemn pledge?

The Island was taken possession of on the 12th August, 1786, and we do not find the positive decision of the Governor General against affording protection, till January 1787, when the sentiments of the supreme government on that head are communicated to Mr. Light. "With respect to protecting the king of Quedah against the Siamese, the Governor General in Council has already decided against any measures that may involve the Company in military operations against any of the eastern Princes. It follows of course that any acts or promises which may be construed into an obligation to defend the king of Quedah are to be avoided. If however Mr. Light can employ the countenance or influence of the Company for the security of the king of Quedah, consistently with these rules, the Governor General in Council has no objection to his adopting the measure, strictly guarding against any acts or declarations, that may involve the honor, credit, or troops of the Company."

We shall now see that the communication of such sentiments and determination, was productive of the greatest embarrassment to the Superintendent, and what a hazardous game Mr. Light had to play, in consequence of his inability to support the king of Quedah; that the latter finding he had been deceived, begins to devise measures for his own security, and retaliating upon those by whom he conceived himself unfairly dealt with; this is styled by Mr Light "duplicity and cunning." He acquaints the Supreme Government, that "Captain Wright in the "Grampus," who arrived here on the 21st instant from Siam, reports, at Siam they questioned him particularly about the strength of the place. The French Padre begged of him, not to mention Pinang, for the king was exceedingly disturbed at the English being there; they told him at his departure, the king had sent a letter desiring the Honorable Company to take Mergui. Two messengers from Quedah were at Siam, and report spread, that the Rajah of Quedah had sent to Siam complaints against the English; the same report came from Junk Ceylon, with this addition, that the Rajah had wrote for assistance to drive the English from Pinang." And again, "I should be extremely sorry, from any ill-grounded apprehension, to put government to any unnecessary charge or trouble; but it is impossible to say what may be the intentions of the Siamese. If they destroy the country of Quedah, they deprive us of our great supplies of provisions and the English name will suffer disgrace in tamely suffering the King of Quedah to be cut off. We shall then be obliged to war in self defence against the Siamese and Malays; should your Lordship resolve upon protecting Quedah, two Companies of Sepoys, with four six-pounder field pieces, a supply of small arms and ammunition, will effectually defend this country against the Siamese, who though they are a very destructive enemy, are by no means formidable in battle; and it will be much less expense to give the King of Quedah timely assistance, than be obliged to drive out the Siamese, after they have possessed themselves of the country."

Captain Glass also writes to the Governor General about the same time—"The King of Quedah still continues to profess friendship towards us but from his own want of resolution and the intriguing disposition of his council, I do not think his professions are much to be relied upon.—But I am still of opinion, (for reasons

already enumerated to your Lordship) that if his friendship and independence could be secured, it would greatly add to the future peace and welfare of this settlement."

The following extracts from Mr Light's communication to the Supreme Government shew clearly, that the king was still buoyed up with hopes of our protection, and though even at this period Mr Light had reason to suspect his friendship, yet the Rajah consented to follow the advice of the Superintendent and refrained from availing himself of the means, then apparently at his disposal, not only of subduing the Siamese in his immediate vicinity, but of obtaining a large accession of territory and subjects; an attempt he would not have thought of making, unless he had been pretty confident that it would be attended with a favorable result. Instead, therefore, of returning aggression by aggression, it seems he followed the advice of Mr Light, and kept merely upon the defensive. This entitles him to some consideration on our part. About this time, namely, in June 1788, Mr Light endeavoured to negotiate for a final Settlement of the King of Quedah's claims,—he says—"I have made an offer to the king of 10,000 dollars per annum, for eight years, or 4,000 dollars per annum, for so long a period as the Honorable Company should continue in possession of this island; to these offers, I have received no answer. I have endeavoured to sooth his Majesty into compliance with the offers of your Lordship, and have hinted, that although the Company did not wish to make alliances which might occasion disputes with powers they were at peace with, they had not positively forbad my assisting him, if really distressed."

About three years after taking possession of Pinang, viz. in July 1789, we find Mr Light is under considerable apprehension that the King of Quedah would form other alliances, and being disappointed in the expectation of succour from the British government, his attachment was daily subsiding. The negative which the king gives to the offer of money in the first instance, demonstrates that a pecuniary recompense was not his object, and the ungenerous reception of the offer, proves too clearly that he considered himself deceived. Mr Light says, "I make no doubt, but the the King of Siam will take the first opportunity to send his troops into Quedah and Tringano," and afterwards,

" I have entered on the character of the Rajah of Quedah to prepare your Lordship for a scene of duplicity which he is endeavoring to effect, and which principally prevents my embracing the present opportunity of waiting on your Lordship. After acquainting the King of Quedah of the intention of government to allow him 10,000 dollars for seven or eight years, he remained silent a considerable time, at last he acquainted me, that he did not like the offer, without stipulating for any particular sum of money, or mentioning what performance on the part of the Company would content him. Being informed, that he did not relish the idea of selling the island, I asked him if he chose to accept 4,000 dollars per annum, for as long a time as the Honorable Company should continue in possession of the island. To this, after waiting a considerable time, he answered in the negative, at the same time by his letters and messengers he endeavoured to draw a full promise, that the Honorable Company would assist him with arms and men, in case an attack from the Siamese should render it necessary. This I evaded, by telling him no treaty, which was likely to occasion a dispute between the Honorable Company and the Siamese, could be made without approbation of the King of Great Britain; at present, as there was no reason for his entering into war with the Siamese, he had nothing to fear; the Siamese and all other country powers would consider the English as his friends, and for that reason would not disturb him, unless provoked thereto by his bad policy. From the information I have received, I am pretty well satisfied of the king having wrote to Malacca and Batavia to try if the Dutch would give him better terms, and last year I hear he wrote to Pondicherry, to try if the French would undertake to defend his country."

Neither Mr Light, nor any of the succeeding Superintendents or governors had it in their power to assist the King of Quedah, although his appeals were frequent, and his oppression intolerable. Availing himself of the arrival of the Governor General of India, Lord Minto, at Pinang, when his Lordship was proceeding to Java, he addressed him a long letter, dated 24th December 1810, detailing the whole history of his connexion with the English and the oppressions from Siam, and earnestly entreating the effectual aid and protection of the Supreme government. The

letter is as follows.—“ In the year 1199, in the time of my late father, Mr Light bearing on the head of submission the commands of the King of England, and the orders of the Governor General, with various splendid presents, appeared in the presence of my late father, the Rajah, and requested in the name of the King of England and of the Governor General, the island of Pinang, for the purpose of repairing their ships of war, highly extolling the greatness, splendour, power, wisdom and beneficence of His Majesty, the prosperity of the Honorable Company and all those connected in the ties of friendship with them; promising that the King and the Governor General would assist my father in whatever might be required, and would prevent the enemies of Quedah engaging in proceedings detrimental to the country. Moreover, that they should pay rent for the island 30,000 dollars per annum, and entered into sundry other engagements. My father consulting with the Ministers, considering that the neighbouring Burmah and Siamese nations were more powerful than Quedah, and having reflected that the king of Europe (i. e. England) was greater and more powerful than either of those nations, and that by means of the friendship of the English Company, these powers would be prevented from violence or molestation, perceived that it would be very desirable to enter into alliance with the Company, because the Europeans were just and regular in conducting all their affairs, and should the Burmah or Siamese powers unjustly attempt violence, the powerful aid and protection of the Company would enable my father to repel the aggression. My father was, therefore, extremely desirous of obtaining the friendship of the Company, under whose powerful shelter and protection, the country might be transmitted to his descendants increased in strength. For, this country, being small and deficient in strength, would depend on the power of the Company to repel the attacks of the Siamese and Burmahs. My father accordingly impressed with a sincere desire to obtain the friendship of the Company, granted the Island of Pinang according to the request of Mr Light, the Agent for the Governor General, and a written engagement, containing my father's demands from the Company, was given to Mr Light, for the purpose of being forwarded to the Governor General. After some time, Mr Light returned to settle on the island, bringing some Sepoys, and he informed my father that the Governor General

consented to his requests, and had sent people to settle on the island; that the writing from my father had been transmitted by the Governor General to Europe, for the purpose of receiving the royal seal and sanction, and that it would be returned in six months. My father accordingly granted permission to proceed to settle on the Island of Pinang, and sent his people to assist in the work, and his officers to protect them from the pirates in the commencement. My father having waited some time, at the expiration of one year, requested the writing from Mr Light, who desired him to wait a little; at the end of six years no authentic writing could be obtained; he received 10,000 dollars per annum, but Mr Light refused to fulfil the remainder of his engagements, and in consequence of my father insisting upon having a writing, agreeably to his former stipulation, a misunderstanding arose between Quedah and Pinang, after which a new treaty alliance was concluded. Since that time, many governors have been placed over Pinang, but my father was unable to obtain a writing either from Europe, or from the Governor General. In the year 1215, my father left the government to my uncle, at which time the Governor of Pinang, Sir George Leith, requested the cession of a tract of land on the opposite shore, alleging that the island being small, the Company's people were distressed for procuring timber, and the raising of cattle. My uncle being desirous of removing the uneasiness, granted a tract (of which the boundaries were defined) accordingly, placing entire dependence on the power of the Company to protect and defend him against his enemies, and Sir George Leith made a new treaty, consisting of fourteen articles, and constituting the two as one country. This, and the former treaty, are inscribed on the Company's records. During the whole government of my father and uncle, no injury or molestation of any consequence had been sustained, nor has any one ever offered to send my letter of supplication to the king or to the Governor General. I consequently desisted, and only communicated with the several governors of the island in matters relating to the two countries, but no certain arrangement from Europe could be heard of nor could I obtain any assurances on which I could depend.

“ Moreover, so long as I have administered the Government of

Quedah, during the time of the late King of Siam, his proceedings were just and consistent with former established custom and usage. Since the decease of the king, and the accession of his son to the throne, in the year 1215, violence and severity have been exercised by the Siamese against Quedah, in demands and requisitions exceeding all former custom and usage, and which I cannot support for a length of time. The Rajahs of Quedah have been accustomed to submit to the Siamese authority in matters clearly proper and consistent with the established customs of the governments, for the sake of the preservation of the country, being unable to contend with Siam, from the superior number of their people. During my administration, their demands have been beyond measure increased, and heavy services have been required of me, inconsistent with the custom of the country. These, however, I submitted to as far as I have been able, for the sake of the people, and to prevent the danger of a rupture with them; how many services, unprecedented in former years, have I not performed, and what expences have I not incurred in carrying into effect their requisitions. Nevertheless, I cannot obtain any good understanding with them, nor any peace, nor any termination to their injuries and oppressions. They no longer confide in me, and seek to attach blame, alleging that I have joined with the Burmahs, with whom this year they have made war, and their intention is to attack Quedah for the purpose of reducing the country under their government. I have in vain endeavoured to avert the enmity of Siam, but without any appearance of success. I have made known to the Governor of Pinang, every circumstance with relation to this country and Siam, and have requested their advice and the assistance of the Company, on which my father relied, because the countries of Quedah and Pinang are as one country and as one interest. When, therefore, Quedah is distressed, it cannot be otherwise with Pinang. The governor advised me by all means to avoid coming to a rupture with Siam, alleging that it was not in his power to afford me assistance, for that the Supreme Government in Europe had forbidden all interference in the wars of the neighbouring powers.. Perhaps this would be improper with respect to other countries, but Quedah and Pinang are much distressed by the labours necessarily imposed to avert the resentment of Siam, and every exertion on my part has been made to

prevent coming to a rupture with that power, but I was unable to submit to demands exceeding all former precedent, which induced me to apply to the Governor of Pinang for the Company's aid, to enable me to repel their demands, for my father having transmitted to me his friendship and alliance with the Company, it would be otherwise a reflection upon the power of the King of England, who is accounted a Prince greater and more powerful than any other. I conceive that the countries of Quedah and Pinang have but one interest, and perhaps the king and my friend may not have been well informed, and in consequence the Governor of Pinang has not been authorized to afford assistance, and that should they be acquainted therewith, they would consider it impossible to separate the two countries. In consequence, I request my friend to issue directions, and to forward a representation to the King and to the Honorable Company, of the matters contained in this letter. I request that the engagements contracted by Mr Light with my late father, may be ratified as my country and I are deficient in strength; the favor of his Majesty the King of England extended to me, will render his name illustrious for justice and beneficence, and the grace of his Majesty will fill me with gratitude; under the power and Majesty of the king, I desire to repose in safety from the attempts of all my enemies, and that the king may be disposed to kindness and favor towards me, as if I were his own subject, that he will be pleased to issue his commands to the Governor of Pinang to afford me aid and assistance in my distresses and dangers, and cause a regulation to be made by which the two countries may have but one interest; in like manner I shall not refuse any aid to Pinang, consistent with my ability. I further request a writing from the king, and from my friend, that it may remain as an assurance of the protection of the king, and descend to my successors in the government. I place a perfect reliance in the favor and aid of my friend in all these matters."

The whole of Mr Light's correspondence is corroborative of this candid exposition, and it was quite inconsistent with reason to suppose, that Pinang was ceded without some very powerful inducements, in the way of promises by Mr Light, which, no doubt, in his eagerness to obtain the grant, were liberal and almost unlimited and that his inability to perform them was the occasion of much mental suffering to him.

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LEGEND OF THE BURMESE BUDHA CALLED GAUDAMA.*

CHAPTER 10TH.

Accompanied by his thousand followers, Phra went to the village of Gayathetha. This village stands on the bank of the river Gaia. Close to it, there is a mountain resembling in appearance an elephant's head. On the top of the mountain there is a large rock wide enough to accommodate Budha and all his attendants. He ascended the mountain with his disciples, and having reached its summit, he sat down. Having summoned round him all his disciples, he said to them: "Beloved Bickus, all that is to be met with in the three abodes of men, Nats and Brahmas, is like a burning flame: but why is it so? because the eyes are a burning flame: the objects perceived by the eyes, the view of those objects, the feelings created by that view, are all like a burning flame. The sensations produced by the eyes cause a succession of pleasure and pain, but that pleasure and pain are likewise a burning flame. What are the causes productive of such

* Continued from p. 364.

a burning? It is the fire of concupiscence, of anger, of ignorance, of birth, of death, of old age and of anxiety. Again, the ear is a burning flame; the sounds, the projection of the sounds, the sensations caused by the sounds, are all a burning flame; the pleasure or pain produced by the sounds are too a burning flame, which is fed by the fire of concupiscence, anger, ignorance, birth, old age, death, anxiety, tears, affliction and trouble. Again, the sense of smelling is a burning flame; the odours, the perception of odours, the sensation produced by odours, are all a burning flame; the pleasure and pain resulting therefrom are but a burning flame, fed by concupiscence, anger, ignorance, birth, old age, death, disquietude, tears, affliction and sorrow. Again, the taste is a burning flame, the objects tasted, the perception of those objects, the sensations produced by them, are all a burning flame, kept up by the fire of concupiscence, anger, ignorance, birth, old age, death, anxiety, tears, affliction and sorrow. Again, the sense of feeling, the objects felt, the perception of those objects, the sensations produced by them are a burning flame; the pleasure and pain resulting therefrom are but a burning flame, fostered by concupiscence, anger, ignorance, birth, old age, death, anxiety, tears, affliction and sorrow. Again, the heart is a burning flame, as well as all the objects perceived, and the sensations produced by it; the pleasure and pain caused by the heart are too a burning flame, kept up by the fire of concupiscence, anger, ignorance, birth, old age, death, disquietude, tears, affliction and sorrow. Beloved Bickus, they who understand the doctrine I have preached, and see through it, are full of wisdom and deserve to be called my disciples. They are displeased with the senses, the objects of senses, matter, pleasure and pain, as well as with all the affections of the heart. They became free from concupiscence and therefore exempt from passions. They have acquired the true wisdom that leads to perfection; they are delivered at once from the miseries of another birth. Having practised the most excellent works, nothing more remains to be performed by them. They want no more the guidance of the sixteen laws, for they have reached far beyond them". 71

Having thus spoken, Budha remained silent. His hearers felt themselves wholly disentangled from the trammels of passions, and

disengaged from all affections to material objects, and they who had been but Rahans, became Rahandas.

Whilst the most excellent Phra was enjoying himself in the place of Gayathetha, he recollected that at the time he was but a Phralaong, being near the mountain Pantawa, he had received from king Pimpathara an invitation to come to his own country and preach the law. Accompanied with his thousand Rahandas he set out for the country of Radzaguio. Having arrived at a small distance from the royal city, he went to a place planted with palm trees. The king having heard of his arrival, said to his people:—"the descendant of a long succession of illustrious princes, the great Rahan Gaudama, has entered into our country, and is now in the grove of palm trees, in the garden of Tandiwana". The happy news was soon re-echoed throughout the country. The people said among themselves:—"the great Gaudama is come indeed. He is perfectly acquainted with all that relates to the three states of men, Nats and Brahmas; he preaches a sublime and lovely law; the morals that he announces are pure like a shell newly cleansed". Pimpathara placing himself at the head of 120,000 warriors, surrounded by crowds of nobles and Pounhas, went to the garden of Tandiwana, where Phra was seated in the middle of his disciples. He paid his respects by prostrating before him and then withdrew to a becoming distance. The countless crowd followed the example of their monarch, and seated at a becoming distance. Some of them remained conversing with Budha, and heard from him words worthy to be ever remembered; some having their hands joined to the forehead remained in respectful attitude; some were praising his illustrious ancestors; some others remained modestly silent. All of them perceiving the three Kathabas close to the person of Phra doubted whether Gaudama was their disciple or they his disciples. Budha seeing at once what thought occupied the mind of the warriors, noblemen and Pounhas, addressed the elder Kathaba, called Oorouwela Kathaba, and said to him: Kathaba, you who lived formerly in the solitude of Oorouwela, answer the question I am now putting to you. You were formerly a teacher of Rathees, who practised works of great mortification, what has induced you to give up the sacrifices you were wont to make? Blessed Budha, answered

Kathaba, I have observed that exterior objects, the sounds, the taste, the gratification of senses are but miserable filth, and therefore I take no more delight in the offering of small and great sacrifices. Budha replied : Kathaba, if you be no longer pleased with what is beautiful to the eyes, pleasant to the ear, palatable to the taste, and agreeable to the gratification of the senses, in what do you presently find pleasure and delight? Kathaba answered: Blessed Budha, the state of Niban is a state of rest, but that rest cannot be found as long as we live under the empire of senses and passions. That rest excludes existence, birth, old age and death ; the great mental attainments alone lead thereto. I know and see that nappy state. I long for it, I am therefore displeased with the making of great and small sacrifices. Having thus spoken, Kathaba rose up, worshipped Budha, by prostrating before him and touching with his forehead the extremities of his feet, and said : O most excellent Budha, you are my teacher, and I am your disciple. All the people seeing what Kathaba had done, knew that he was practising virtue under the direction of Gaudama. Phra who was acquainted with their innermost thoughts, knew that they were longing to hear the preaching of the law. As it is always done, he began to preach to them the virtue of liberality in alms giving, the advantages of leaving the world &c. The hearers felt an inward delight at all that was said to them. Observing the favorable impression made upon them, Gaudama continued to instruct them on the four laws, regarding the miseries of this world, the passions, the practice of excellent works, and the the ways to perfection. At the conclusion of these instructions, the king and 100,000 of the assembly, like a piece of white cloth, which, when plunged into die, retains the color it receives, obtained instantly the state of Thautapan ⁷³. As to the ten thousand remaining hearers they believed in the three precious things, in the capacity of Oopathaka.

The ruler of the country of Magaritz, king Pimpathara, having obtained the state of Thautapan, said to Gaudama:—illustrious Budha, some years ago, when I was but the crown prince of this country, I entertained five desires, which are all happily accomplished. Here are the five desires—I wished to become king ; that the Phra, worthy of receiving the homage of all men,

should come into my kingdom, that I might have the privilege of approaching him; that he might preach his doctrine to me, and finally that I might thoroughly understand all his preaching. These five wishes have been fully realized. Your law, O most excellent Budha, is a most perfect law. What shall I assimilate it to, in the happy results it produces? It is like replacing on its proper basis a vase that was bottom upwards; or setting to light objects hitherto buried in deep darkness; it is an excellent guide that shows out the right way; it is like a brilliant light shining forth and dispelling darkness. Now I take refuge in you, your law and the assembly of the perfect. Henceforth I will be your supporter, and tomorrow I will supply you and your disciples with all that is necessary for the support of nature. Budha by his silence testified his acceptance of the proffered favor. Whereupon the king rose up, prostrated before him, and turning on the right, left the place and returned to his palace.

Early in the morning Pimpathara ordered all sorts of eatables to be ready; meanwhile he sent messengers to Budha to inform him that his meal was ready. Budha rising up, put on his dress and carrying his Patta, set out for Radzaguio, followed by his 1,000 disciples. At that time a prince of Thagias assuming the appearance of a handsome young man, walked a little distance in front of Budha, singing to his praise several stanzas. "Behold the most excellent is advancing towards Radzaguio, with his 1,000 disciples. In his soul he is full of meekness and amiability: he is exempt from all passions: his face is beautiful and shines forth like the star Thigi: he has escaped out of the whirlpool of existences, and delivered himself from the miseries of transmigration. He is on his way to the city of Radzaguio, attended by a thousand Rahandas (the same stanza is thrice repeated). He who has obtained the perfection of Ariahs, who has practised the ten great virtues, who has a universal knowledge, who knows and preaches the law of merits; who discovers at once the sublime attainments of the most perfect beings, the most excellent, is entering into the city of Radzaguio accompanied with a thousand Rahandas."

The inhabitants of the city seeing the beautiful appearance of that young man and hearing all that he was singing aloud, said

to each other: who is that young man whose countenance is so lovely and whose mouth proclaims so wonderful things? The Thagia hearing what was said of him, replied, O children of men, this most excellent Phra whom you see, is gifted with an incomparable wisdom, all perfections are in him; he is free of all passions; no being can ever be compared to him, he is deserving of receiving the homage and respect of men and Nats: his unwavering mind is ever fixed in truth; he announces a law extending to all things. As to me, I am but his humble servant.

Having reached the king's palace, Budha was received with every demonstration of respect, and led to the place prepared for him. Pimpathara thought within himself of the thing which could prove acceptable to a Phra in order to offer it to him. He said within himself: my garden which is situated near the city would doubtless be a very fit place for Budha and his followers to live in. As it lays not far from the city, it would be a place of easy resort to all those who would feel inclined to visit Budha and pay him their respects. But is it far enough that the noise and cries of the people could not be heard therein: the place is peculiarly fitted for retreat and contemplation: it will assuredly prove agreeable to Budha. Whereupon he rose up, and holding in his hand a golden shell like a cup, he made to Phra a solemn offering of that garden which was called Weloowon. Gaudama remained silent in token of his acceptance of the gift. He preached the law, and left the palace. At that time he called his disciples and said to them:—Beloved Rahans I give you permission to receive offerings.

CHAPTER 11TH.

In the country of Radzaguio, there was a heterodox Rahan named Thinze, who had under him five hundred and fifty disciples. Thariputra and Mankalau were at that time practising virtue under the guidance of that master. Here is the way they became Rahans. When they were but laymen under the name of Oopath and Kaulita, on a certain day, surrounded by two hundred and twenty companions, they went on the top of a lofty mountain to enjoy the sight of countless multitudes of people enjoying themselves on the surrounding flat country. While they were gazing over the crowds of human beings, they said to each other; in a

hundred years hence all these living beings shall have fallen a prey to death. Whereupon they rose up and left the place, but their mind was deeply pre-occupied with the idea of death. While the two friends were walking silently together, they began at last to communicate to each other the result of their reflexions. If there be, said they, a principle of death, a universal tendency towards destruction, there must be, too, its opposite principle, that of not dying. On that very instant, they resolved to search ardently for the excellent law that teaches the way of not dying. They went to the place where lived the Rahan Thinze, placed themselves under his directions and put on the dress of Rahan. Within three days they acquired the science of wisdom and knowledge of their teacher, without having as yet reached the object of their eager pursuit. They said to Thinze:—teacher is this all that you know? and have you no other science to teach us? I have indeed, replied the teacher, taught you all the knowledge I possess. Finding nothing satisfactory in the answer, the two friends said;—let us continue seeking for the law that has reality in itself; the first that shall have discovered it shall without delay, communicate it to the other.

On a certain morning, one of Gaudama's disciples named Athadzi, having put on his religious habit, carrying his patta on his left arm, went out to receive his rice. All in his person was noble and graceful: his countenance and behaviour were at once gentle and dignified, whether he walked or stopped, or looked forward on the right or the left, or sat in a cross legged position. The false Rahan Oopathe, who became afterwards Thariputra, perceiving the Rahan Athadzi with such a meek and dignified deportment, said to himself: such a Rahan is assuredly worthy of receiving offerings, he has doubtless attained perfection, I will go to him and ask him, in case of his having a teacher, who is that distinguished instructor, under whom he practices virtue; and in case of his being himself a teacher, what is the doctrine that he teaches. But it is not becoming to put to him any question whilst he is on his way to beg alms; I will follow him at a distance. Athadzi having collected alms, left the city and went to a small dzeat, where he sat down and ate his meal. Oopathe followed him thither. Having entered into the dzeat, he rendered to him

the usual services that a disciple pays to his teacher. When the meal of Athadzi was over, he poured water over his hands, and with a heart overflowed with joy, he conversed with him for a while. He withdrew then to a becoming distance, and addressed him as follows; great Rahan, your exterior is full of meekness and benevolence, your countenance bespeaks the purity and innocence of your soul; if you be a disciple, pray under what teacher have you become Rahan? who is your guide in the way to perfection and what is the doctrine he is preaching to you? Young Rahan, replied Athadzi, have you not heard of the illustrious Budha, the descendant of a long succession of great monarchs, who has entered the profession of Rahan. I have become Rahan under him: he is my teacher, to his doctrine I cling with all the energy of my soul. What is the doctrine of that great master? asked Oopathe. I am but a novice in the profession, and am as yet imperfectly acquainted with the doctrines of my teacher, the little, however, I know, I will announce to you. Oopathe entreated him to do so. Athadzi replied:—the law which I have learned at the feet of Budha explains all that relates to matter, to the principles that act upon it, to passions and to the mind, it makes man despise all that is material, conquer his passions and regulate his mind. On hearing this doctrine, Oopathe felt the ties of passions gradually relaxing and giving way; his soul became as it were disentangled from the influence of the senses. He became enamoured with such pure and perfect law and obtained the condition of Thautapan. Convinced that he had at last found what he had hitherto searched after in vain, the law of Niban, he went without delay to his friend to make him share in the beneficial results of his fortunate discovery. Kaulita perceiving his friend coming up to him with a rejoiced countenance indicative of the happiness his soul was inwardly enjoying, asked him if he had found what he had hitherto vainly looked for. Oopathe related to him all the particulars of his conversation, with the Rahan Athadzi. Whereupon Kaulita became instantly a Thautapan. Both resolved to leave their teacher Thinze, and go immediately to place themselves under the guidance of Budha. Three times they applied for permission to execute their design, and three

times it was denied them. At last they departed each with his two hundred and twenty companions. Thinze irritated at being left alone, died vomiting blood from his mouth.

When the two friends and their followers were drawing near to the place of Weloowon, Phra assembled all his disciples and said to them:—behold those two friends coming up to me, they will become my two beloved disciples—their minds are acute and penetrating—they actually take delight in the law of Niban, their thoughts are converging towards that great centre of truth, they come to me and they will become my two most excellent disciples. Whilst he was speaking, the two friends crossed the threshold of the monastery, prostrated themselves at the feet of Budha, humbly craving the favor of being admitted among his disciples, and to practise virtue under his immediate direction. On this occasion, Phra uttered the following words: O Bickus, come to me; I preach the most excellent law, apply yourselves to the practice of the most perfect works which will put an end to all miseries. A suitable dress and a Patta were handed over to the two friends that were henceforth to be called Thariputra and Maukalan, and they became members of the assembly. Having put on the new dress they appeared to the eyes of all with the decent and dignified deportment of Rahans that had sixty years of profession. Their followers became Bickus of the second order. Seven days after, Maukalan became a Rahanda: but it took fifteen days to Thariputra to obtain the same favor. All that regards the promise that these two illustrious friends received in the time of Budha Anaumadathe may be read with circumstantial details in the book called Apapantera.

The inhabitants of the Magatha country, seeing that so many persons, chiefly belonging to the first families, were embracing the profession of Rahans, said amongst themselves: behold the Rahan Gaudama by his preachings, causes the depopulation of the country, and forces countless wives to the state of widowhood. A thousand Rathees have embraced the profession of Rahans; the two hundred disciples of Thinzi have followed their example; many others will soon tread on their footsteps; what will become of our country? With these and other expressions they gave vent to their hatred of the Rahans and endeavoured to pour over them

all kind of ridicule and abuse: they concluded by saying: the great Rahan has come to the city of Radzaguio, which is, like a cowpen, surrounded by five hills; he has now with him the disciples of Thinzi; who will be the next to go to him? The Rahans hearing all that was said against them, went to Budha and related to him all that they had heard. To console them Budha said: beloved Bickus, the abuses, sarcasms and ridicule, levelled at you, shall not last long: seven days hence all shall be over. Here is the reply you will make to the revilers: like all his predecessors, Budha is striving to preach a most perfect law: with it he brings men over to himself, what shall avail any man to feel envious at the success he obtains by so legitimate a means. The same torrent of ridicule having been poured on the Rahans, when they went out, they followed the advice of their great teacher, replied in the manner they had been taught to do, and the storm was soon over. The people understood that the great Rahan was preaching a perfect law, and that he never resorted but to fair means to attract disciples round his person. Here ends the narrative of the conversion and vocation of Thariputra and Maukalan.

NOTES.

70. The philosophical discourse of Budha on the mountain may be considered as the summary of his theory of morals. It is confessedly very obscure and much above the ordinary level of human understanding. The hearers whom he addressed, were persons already trained up to his teachings and therefore prepared for understanding such doctrines. Had he spoken in that abstruse style to common people, it is certain he would have missed his aim and exposed himself to the chance of not being understood. But he addressed a select audience whose minds were fully capable of comprehending his most elevated doctrines. He calls his disciples Bickus, or mendicants, to remind them of the state of voluntary poverty they had embraced when they became his followers, and to impress their minds with contempt of the riches and pleasures of this world.

He lays down as a great and general principle that all that exists resembles a flame that dazzles the eyes by its brilliancy, and torments by its burning effects. Here appears the favorite notion of Buddhism that there is nothing substantial and real in this world, and that the continual changes and vicissitudes we are exposed to are the cause of painful sensations. Budha reviews the six senses (the heart according to his theory, is the seat of a sixth sense) in succession and as they are the channels through which affections are produced on the soul, he compares to a burning flame the organs of senses, the various stages of the action of senses, the results painful or agreeable produced by them. Hence he fulminates a general and sweeping condemnation against all that exists without man. The senses being the means through which matter influences the soul, share in the universal doom. Budha sets forth the causes productive of that burning flame. They are first the three great and general principles of demerits viz.—concupiscence, anger and ignorance. In the book of Ethics these three principles are explained at great length: they are represented as the springs from which flow all other passions. In a lengthened digression, the author aims at simplifying the question and endeavours to show by a logical process that ignorance is the head source from

which concupiscence and passion take their rise. It is therefore, according to Budhists, in the dark recess of ignorance that Metaphysicians must penetrate in order to discover the first cause of all moral disorders. Every being has his mind more or less encompassed with a thick mist that prevents him from seeing truth. He mistakes good for evil, right for wrong; he erroneously clings to material objects that have no reality, no substance, no consistence: his passions are kept alive by his love or hatred of vain illusions. The flame is, moreover, fed by birth, old age, death, afflictions &c. &c. which are as many focii where from radiate out on all surrounding objects, fires which keep up the general conflagration. But they play only a secondary action, dependent from the three great causes of all evils, just alluded to. What causes birth, old age and death, inquires the Buddhist? The law of demerits, is the immediate answer to the question; it might be added thereto, the necessity of acquiring merits and gravitating towards perfection. A man is born to innumerable succeeding existences, in virtue of his imperfections, and that he might acquire fresh merits by the practice of virtue. By birth a being is ushered into a new existence or into a new state, where the burning flame which is supposed to spread over all that exists, exercises its teasing and tormenting influences over him, old age and death are two periods where a radical change operates over a being, and places him a different situation where he experiences the baneful effects of the conflagration. Blessed are they, says Budha, who understand this, they are full of wisdom, they become displeased with all passions and with all the things they act upon. The causes of existences being done away with, they have reached the terminus of all the worst of existences; one step more and they find themselves placed beyond the influence of the power of attraction that retains forcibly all beings and brings them towards the centre of existence; he is de facto entering into the state of Niban.

71. From the purport of Kathaba's reply to Budha's question, may be concluded with certainty that the Rathes were in the habit of making sacrifices by immolating victims. Those sacrifices, again, were not of the same interest or importance, since he states distinctly that he is now displeased with the offering of small and great sacrifices. But what these sacrifices were; what was their nature; in what did they consist; to whom were they offered; these are so many interesting questions, which it is beyond my power to answer satisfactorily, as I have never had the good fortune of ever meeting with any detailed accounts regarding those Rathes and their mode of living.

Kathaba does not appear to be very explicit in his answer to Phra. It seems that he intended to say, that notwithstanding the offerings and sacrifices he had hitherto made, concupiscence and vicious propensities were still in him and that through the channel of senses, exterior objects continued to make some impression upon him, he had therefore become disgusted with practices which could not free him from the action of passions and matter nor wash away the stains which defiled him through the senses.

72. It is necessary to explain the meaning of that term Thautapan, but this cannot be done without explaining first the meaning of the word Ariah. This latter expression is intended to designate the members of the assembly of Budha's hearers who were foremost in the way of perfection. They are the *venerables* of this body, not by virtue of their age, but by their superior proficiency in merits and spiritual attainments. These Ariahs are divided into four classes, named—Thautapan, Thakadagam, Anagam and Arahats, and according to the particular position occupied by the beings of new states, each class is subdivided into two; for instance, Thautapatti Megata, means, he who has entered and is walking as it were in the way of the perfection of Thautapan, and Thautapatti-pho indicates those who enjoy the merits and blessings of the state of Thautapan, and so with the three superior stages of perfection. To obtain the state of Thautapan, a man must have left the direction followed up by all creatures and entered into the direction or way that leads to deliverance. He will have got to go through 80,000 kaps or durations of worlds, and must be born seven times more in the state of man and Nat, before he be a perfected being; rise for the state of Niban. Those who have reached the state of Thakadagam shall have to pass through 60,000 kaps, and be born but once in the state of Nat and once in the state of man before they be perfected. Those who have obtained the third step of Anagam have to travel through 40,000 kaps, and are no more to undergo the process of birth at the end

of that period, they are perfected. The fourth stage of perfection, that of Arahāt, is the highest a being can ever retain. The fortunate Arahāt is gifted with supernatural powers. At the end of 20,000 kapps, he is perfected, and reaches the state of deliverance. Those four states are often called the four great roads leading to the deliverance or to Nibān. I have here given but a very imperfect and faint outline of those four states of perfection, which would have received fuller and more circumstantial details, had I not lost an important manuscript treating at great length on that important subject. The best memory is unable, after a lapse of more than 10 years, to recollect particulars, based often on arbitrary divisions. Buddhists are peculiarly fond of in all their writings. It may be asked whether the state of Thautapan be the first step reached by every one that adheres to Budha's doctrines, or whether it be one that requires a certain progress in the way of believing and practising? It seems from the narrative of King Pimpāthara and his followers' conversion, that the state of Thautapan is the reward of those who have showed a more than common proficiency and fervour in adhering to Budha and his doctrines, but not the first step to enter into the assembly and become a member thereof. One may be a simple hearer, or Oopathaka, believing in the three precious things, without attaining the state of Thautapan. On this occasion, the king and 100,000 of his warriors and noblemen became Thautapans, whereas the remaining 10,000 became believers and members of the assembly without reaching any further.

73. Is not that young man doing the duty of forerunner of Budha on the occasion of his solemn entry into the city of Radzaguio?

The narrative of the donation of the grove or garden of Welooan, by King Pimpāthara to Budha, discloses the manner in which Buddhist Monks have become holders, not as individuals, but as members of a society of landed properties. Budha and his disciples at first had no place to live in, as a body or a society; he hitherto had taken up his quarters in any place where people were willing to receive him. He must have often been put to great inconvenience, particularly after the accession of new disciples, daily crowding about him. The pious king felt the disadvantage the society was labouring under: he resolved to give them a place where the assembly might live and remain. The donation was as solemn as possible. It transferred to Budha the property of the garden, without any condition, for ever. The donation on the other hand, was fully accepted. This is, I believe, the first instance of an act of this description. The grove and monastery of Welooan is much celebrated in the Buddhist writings, as the scene of many important events concerning Budha's life.

In Burmese towns a particular spot is allowed for the building of houses or monasteries for Buddhist Recluses or Monks. It is somewhat isolated from all other buildings, and forms, as it were, the quarter of the yellow dressed personages. Here is a general description of one of those buildings. They are of an oblong square shape, raised about eight or ten feet above the ground and supported on wooden posts and sometimes, though seldom, on brick pillars. The frame of the edifice is of wood and planks form the wall. Above the first roof rises a second one of smaller dimensions, and a third one yet smaller than the second. This style of roofing a house is allowed but for pagodas, Talapoins houses, and royal palaces. The place between the soil and the floor is left open and never converted to any use. A flight of steps, made of wood or bricks, leads to the entrance of the edifice, the interior whereof is generally divided as follows: one vast hall designed for the reception of visitors, and used also as a school room for the boys who go to learn the rudiments of reading, writing and sometimes cyphering. Except on grand occasions the Talapoins generally stay in that hall, doing away with their time in the best way they can, by reading occasionally some books, counting their beads, chewing betel and very often sleeping. At the extremity of the hall, there is a place raised one or two steps above the level. A portion of that place is left vacant or empty, and reserved for the sittings of the Talapoins, when they receive visitors: the other portion, which extends to the wall, is occupied by idols or representations of Budha, raised on pedestals, and sometimes placed on shelves, with the few implements required for exterior worship. There, too, are to be seen a few trunks ornamented with sculptures and gildings and containing books belonging to the monastery. The hall and the place as far as the walls occupies just one half of the oblong square. The other half, parallel to the first, is occupied by rooms intended for the storing of alms, and as dormitories for the inmates of the house.

In some monasteries, the ceiling is painted and partly gilt. The cookroom is connected with the extremity of the square, opposite to the one occupied by the idols. It is generally on the same level with the floor of the building. Government has nothing to do with the erection, repairs and maintenance of those edifices. They are erected and kept up by private individuals who deem it very meritorious to build such places. Those whose piety actuates and prompts them to undertake such an expensive work, assume the title of Kiaong Tagas, which means supporter of a pagoda or Talapoins' residence. They are proud of such distinction, cause themselves to be called by that title and always make it to follow their names in signing any paper or document.

SKETCH
OF THE
RHIO-LINGGA ARCHIPELAGO.*

By G. F. DE BRUYN KOPS. Lieutenant, Dutch R. N.:

UNDER the appellation of the Rhio-Lingga Archipelago may properly be considered as comprehended the numerous islands between Sumatra and Borneo, bounded on the north by the Peninsula of Malacca and to the south by Banka and Billiton. These form a part of the formerly powerful kingdom of Lingga, which, previous to 1824, extended over a great part of the Malay peninsula and over the maritime provinces on the East Coast of Sumatra, from Palembang to the territory of Siac.

This archipelago, composed of an innumerable collection of islands and reefs, is divided into two main groups,—namely, the Rhio group and the Lingga group. Each group is further subdivided into separate small groups by a multitude of straits.

The Rhio group is the most northerly, and consists of the large islands of Bintang, Battam, Gallat, Bulang, Chumbol, Sugee, Durian, Karimon, Segupong beside a great many others of less importance.

The Lingga group consists chiefly of the islands of Lingga and Sinkep, Timian and Rodong as also the detached island Saya and the Seven islands group.

These islands are separated by numerous straits. Only a few of these straits, however, are navigable by ships; the rest are so narrow and crooked, that it is even unadvisable for small vessels of light draught to venture through them. All have reefs of more or less consequence, part of which are connected with the islands and part are detached. From this circumstance these islands were formerly much frequented by pirates, who had inaccessible hiding places all over them, in which they were perfectly secure against an attack by boats, owing to the multitude of outlets and salt water creeks.

The tides at times are very strong in the Straits and occasion

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a considerable fall of water. In the inner road of Rhio, for example, this amounts at spring tides to 9 or 10 feet and at ordinary tides to 5 or 6 feet. In the north monsoon the flood comes into the Straits of Rhio from the north and the ebb from the south. In the north east monsoon the contrary is the case, the flood running to the north and the ebb to the south. In the former, high water is in the day time, in the latter at night. The duration of the tides is very unequal. Sometime there occurs a long ebb and flood of 9 hours, followed by a small one of 3. The difference in the state of the water by day and night is caused by the springs. At full and new moon it is high water at Rhio at 12 o'clock.

Nearly all the islands are hilly and moderately high, between 100 and 200 feet. Lingga, alone, constitutes an exception, being high and steep in the southern part of the island. The hillocks have nearly all round or flat crowns, and thus form saddle or table hills. The islands Rodong, Potong and Spits Domino have peaks, of which the first named, especially, is very steep. Volcanoes, however, are nowhere met with, and none of the hills by their forms give any indications that they belong to that class. The peak of Lingga is 3649 Rhineland feet high, the mountain Lanjut on Sinkep is 1552, and the saddle mount of Bintang is 1330. None of the rest of the mountains and hills attain these heights.

This Archipelago being divided by the equator, the monsoons are much less regular than in Java. This is especially the case with reference to the weather. The north monsoon blows from the beginning of November to the middle of April, the south monsoon from May to October. In the changing months, many and protracted calms occur, varied by heavy squalls. When the monsoon is fairly set in, there is usually a fresh breeze, which scarcely ever varies in direction. The greatest quantity of rain falls in November and December, which period is thence called the great rainy season, the lesser one occurs in July and August. Sometimes, however, there are successive days of fine weather, which again are followed by very heavy squalls of rain. In general the rains are not so continuous as on Java and generally only last for a few hours. In the south monsoon the weather is usually fair, with showers of rain now and then, which mitigate the burning heat, fertilise the parched ground and contribute much

to the salubrity. At this season frequent and heavy thunderstorms occur. At the foot of the Lingga mountain rain falls daily, the clouds seem to pack on the top, condense there and fall below in streams of water. The rains frequently fall there for successive days without the slightest intermission.

To the north of the equator the winds in the north monsoon are generally N. N. E. and N. E., and to the south N. and N. N. W. In the south monsoon they are to the north S. and S. S. W. and to the south S. E. and S. S. E.

The climate on the whole may be considered as healthy. The heat is sometimes oppressive, to which the sandy and stony nature of the soil greatly contributes. The nights are generally cool with heavy dew.

The island Bintang or Bientan is generally flat, especially in the northern part. The saddle mountain rises directly out of the low ground; due north stands a detached pointed hill. The large hill has a double rounded top of considerable breadth. Besides these, there is another hill (Gunong Kwas) and a flat hill in the southern part.

To the south there are different smaller islands, such as Pulo Gin, Talang, Siolon and others of less consequence. On the eastern side lie some small islets. Numerous creeks divide the island in separate portions and serve as a means of communication for small craft, sampans &c. between the different places. In the middle and northern part the ground is swampy; in other parts it is mostly sand and ironstone. The small islands in the immediate neighbourhood such as Loos, Soreh, Terkoli, consist for the greatest part of sand; those which lie more to the south, such as Pulo Tapeh (the Topics), Aligator and those on the east coast are generally rocky.

The island of Lingga on its S. W. side is high and steep, and everywhere hilly. The peak of the same name has two steep rocky points, which rise up like horns and are thence called the Asses ears. The easternmost of these has a round top, the western on the contrary is steep and pointed. Formerly there were three of these points, but on the day of the death of Sultan Mahomed, the third point fell down. This was naturally considered by the natives as a supernatural occurrence. The sides of the mountain

are steep and the base is environed by a number of smaller but still steep hills. Along these generally streams may be observed descending, which are clearly defined like silver stripes against the rocky background. The mountain is thickly covered to the top with jungle, here and there white spots are to be seen, as if sand or chalky rocks were to be found there. To the east of the peak, lies another considerable but lower mountain with a flat top, forming a complete table mountain. The cleft which separates the two mountains, terminates about half way down. This table mountain has a long but narrow top so that when seen in the direction of the length it appears like a peak. Further to the eastward this mountain runs out in a ridge with three flats, like terraces, one below the other, and terminating in some hillocks which diminish in height the further they are separated from the mountain*. The east coast of Lingga is altogether hilly and of great uniformity in height, so that seen from the sea it frequently appears as if consisting of small islands, especially when the peak of Lingga, as is generally the case, is covered with clouds. Tanjong Yang, the southernmost point of the island, is a little higher than the surrounding ground. Along the east coast, at pretty equal distances from the shore, there is a chain of islands which appear to be rocky. In the roadstead of Lingga there is a small islet, called Klombo, which is also rocky but very fruitful. A number of fruit trees are here cultivated, and the produce, principally mangoes and durians, are sent to Singapore where they always find a ready sale.

To the south of Lingga lies the islet Saya, a steep rock of about 800 feet high. Here and there some bushes are to be seen but the sides themselves are bare, with white streaks upon the dark rocks, which are probably formed by the rain water running down. On the north east side are two small detached rocks. Everywhere else it can be approached closely, as the sides are clear. Between the south-east coast of Lingga and Saya there is a dangerous bank called Allan Katan or the Ilchester shoal, with only 1 fathom of water on the highest part.

* West of the peak the mountains continue steep to Tanjong Labodado, and to the north of that take the hilly character which they retain over all the north coast.

The Seven Islands (Pulo Tujo) lie 8 miles south-east from Pulo Saya. It is a group of small rocky islands.

The island Sinkep, separated by the Straits Lima and Penubo from the south-west point of Lingga, is in that quarter high and mountainous. Here we have the mountain Lanjut, with its round, wooded top. The remainder of Sinkep is low and sandy, here and there watered by small rivulets. On one of these rivulets on the east coast, lies the Campong Rajah, where the chief resides. On the coasts, here and there, we find bays, such as those of Tello-baru on the south point and the bay of Sikana on the north side, running deep into the land. On the last named lies a Campong for years past notorious as the abode of doughty pirates. In 1842 it was destroyed by H. M's schooner "Windhond". Although again occupied it was afterwards forsaken, and the inhabitants settled themselves near Siac, opposite Malacca. Directly to the south of Tanjong Buan, the south-west point of Sinkep, lie the Braballa or Varella islands, which formerly also frequently served as a hiding place for pirates.

The large islands of the Riouw group have all great conformity to each other. They are all hilly, of middling height and thickly wooded. Here and there a mountain raises itself above the hills. The eastern coasts of Sumatra are everywhere very low and scarcely show a single landmark. It appears to be all alluvial ground, gradually formed of the earth which the large rivers bring down from the mountains of the interior and which here becomes deposited from the decreased strength of the stream. The coasts are very flat and everywhere consist of soft ground. The coast is thickly overgrown, especially with mangroves and similar trees, which by their wide spread roots greatly promote the deposit of soil.

The Jambi, Reteh and Indragiri are considerable rivers which all discharge into the basin formed by a deep bay in the coast of Sumatra, with the islands of Lingga and Sinkep to the eastward and the islands of Durian, Sugee, Chambol and Gallat to the northward. The average depth in this large basin is, in the middle, 15 to 20 fathoms and on the south and north side 8 to 12 fathoms.

It is a singular phenomenon that while the mountains of the south-

west side of Lingga and on the north-east point of Sinkep are so steep and high, the sea there is so shallow. Between Saya and Lingga the depth does not exceed 17 fathoms, except a single hole with 24 fathoms, to the south of the Ilchester shoal. On the west side the depth everywhere decreases. To the south of Saya there is still less water, the depth being from 9 to 11 fathoms. To the east of Lingga the average depth is 11 to 18 fathoms. This steadily but gradually increases, as we approach the coast of Sumatra. In general we find only small depths in the whole of this Archipelago; the Straits however form an exception, where the strong currents have scoured out the beds. From this it follows, that it is possible everywhere to anchor, a great advantage in working against the strong currents.

The most important and most frequented of the Straits are:—Brahalla Strait, between Sinkep and the Coast of Sumatra, in the middle of which lie the Brahalla Islands; Penubo and Lima Straits between Sinkep and Lingga, which is divided into two by the island of Penubo; Timian Strait, between the north Coast of Lingga and the group of Rodong, which although not used affords a good channel, three detached reefs lie in the middle of channel; the Straits Pengalap, Abang and Dumpo, between the different islands of these names; Durian Strait, west of the islands Mooro and Durian, which is occasionally used by ships working up to Singapore, and sometimes facilitates the voyage from the smooth water it affords. Lastly, as well as the most important, Rhio Strait, between Bintang on the east side and Gallat, Gampang and Battam on the west side; and Singapore Strait, between Bintang, Battam and Bulang on the south, and the Malay Peninsula on the north side. Of all the above mentioned Straits the two last are those most used.

The only harbours which are frequented are those of Rhio and Lingga; the other places are of too little importance for vessels to resort to them for purposes of trade, and I will therefore confine myself to the description of these two.

The harbour of Rhio, between the island Peningat or Mars and Tanjong Pinang, is divided into an outer and inner road, which are connected by a narrow channel between the land and Pulo Paku. In the outer road there is 4 and 5 fathoms water so that large

ships can anchor in it. The inner road has only two fathoms and can only be used by small craft. The channel itself is narrow and shallow. To the north of Mars there is a passage; but it is obstructed by rocks and reefs and is only used by prahus. At high water spring tides a square sailed vessel occasionally chuses this passage in order to avoid the difficulties of the narrow channel. The anchorage for vessels formerly was further up the bay of Rhio in front of the Campong of Old Rhio, then the residence of the chiefs but now wholly deserted.

The harbour of Lingga lies between the shore and the island Klombo. It can be approached on both sides of the island. The eastern passage is the largest but at same time shallowest, and cannot be taken by a large vessel. To the west there is a deeper entrance with $3\frac{1}{2}$ fathoms water, but it is only 3 cable lengths broad. It is bounded on the outer side by a reef of considerable length which is partly uncovered at low water. The mark for entering this passage is to bring a very conspicuous light green hill directly east of the highest eastern point of the table mountain. This hill, which lies on the shore, is visible at some distance. It is covered with long grass, (alang alang) and has no trees except on the top, where there is a small clump. There was a small benting on the top formerly, but it is now in ruins. Directly to the north of the west point of Klombo is the greatest depth of 8 and 9 fathoms. Ships can lie here at a cable length from the island with the bottom shoaling on all sides, and there is never much sea on.

A little to the west of Klombo, but closer under the shore, lies the Island Mapar, with a large campong. The Orang Kaya, who governs the island, resides here. Both these islands are covered with cocoanut trees, from the sap of which sugar is manufactured.

Along the shore of Lingga in the harbour there is an extensive mud bank with very soft blue mud, on which it is impossible for a person to stand. Through this the Sungai Dai, on which, a little higher up, the campong lies, has formed itself a channel of only 30 or 40 fathoms broad, the course of which frequently changes. Generally branches of trees are stuck in to show the direction which is to be followed. At high water, however, the bank can be crossed in a boat. At the proper mouth of the river we

find a small benting in an indifferent condition, mounted with two small guns, which are wholly useless for the defence of the harbour and of but little utility in protecting the entrance to the river.

The river has only a very small depth, so that boats sometimes chance to stick fast. The tide runs to above the campong. In general the stream in the river is not very strong. The banks at the mouth consist of mud thickly covered with mangroves. They are apparently of alluvial formation. Directly above the campong the ground is firmer and is formed of sand and clay. In the bed of the river a quantity of rolled stones (many of them quartz) are found, which are brought down by the stream from the mountain. According to report the island is fertile, but is little cultivated, through the indolence of the natives.

Like many of the circumjacent islands, Bintang possesses a sandy soil mixed with much iron stone, which from abrasion forms a very stiff clay soil. At different spots good potters-clay, loam and pipeclay are found, which, are made very little use of. There are, however, extensive tracts of ground unsuited for any kind of culture, such as the marshy ground found here and there at Tanjong Pinang. Low or swampy grounds exist at the foot of the saddle mountain which were formerly cultivated with rice by the Illanuns and bore very good crops. Since these were driven away by our settling there in 1818, the Malays have completely abandoned this culture. The ground in general is not unfertile and would amply reward an industrious population for the pains bestowed on it; this is evidenced by the numerous gardens which have been formed by Europeans, Moors and Chinese, amongst which the Panchoor estate, at about a mile from the fort "Kroonprins," is conspicuous. Here most of the Indian fruit and spice trees are cultivated and by steady care and attention have been much improved. The spices in quality equal those produced at Singapore, which now form such a considerable branch of trade.

The ground is very suitable for gambier and pepper, and these two productions form the principal object of cultivation. It appears to me that different European vegetables, such as potatoes, cabbages, onions &c. might be profitably grown, on the slopes or even on the broad summit of the Bintang hill. The colder atmosphere which is found at this height would facilitate this and

the close neighbourhood of the sea would diminish the expense of export. One of the former residents of Rhio, Mr Elout, wished to try the experiment, but he left too soon to allow of its being carried into effect, and since that time no one else has tried to form a garden there.

The rearing of cattle has been occasionally tried at Tanjong Pinang, but with small success. The cause of this is the absence of extensive grass plains. The little grass that is to be found is of a dry and inferior quality. Cattle and sheep get into low condition and are subject to diseases. Horses and buffaloes thrive better. The last mentioned are liable to a disease, which generally appears in the months of June and July, and which proves fatal to the animals within two days after they are attacked by it. Until now cattle have remained free from this disease on the island of Peningat. In my opinion good pasture might be procured on some of the neighbouring islands, such as Loos, and the rearing of cattle for the Singapore market, as well as for local consumption, would be found very profitable.

On the island of Singarang, in the immediate neighbourhood of Loos, there is a stone quarry, where very hard stone is found, which is cut for pillars, square flooring-stones, tomb-stones, bathing vessels, mortars &c. There is also a very hard sand-stone well adapted for grindstones and mill-stones. This quarry belongs to a Chinese of the Canton campong, and is worked by Chinese. Besides those used in the place, the stones, especially the square and oblong floor-stones, are exported to Siam and Java. A duty is paid to the Viceroy at Peningat, amounting formerly, when the stones were easily found, to a tenth of the stones raised, but as they have become scarcer and the quarrying more difficult this contribution has been changed to 100 feet of oblong flooring stones monthly.

The prices of these stones are as follows:—

A pillar	1st kind,	5 feet long,	1 foot broad	f5 00	silver
„	2nd	„	„	4 00	„
„	1st	„ 10	„	13 00	„
„	2nd	„	„	11 00	„
a tomb-stone	1st	„ 5	„	1 00	„
„	2nd	„	„	0 75	„

100 flooring-stones 1st kind, 1 foot square.....	22 00	„
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2nd " " 18 00 "

To the south of Karas, on the small island Tarong, there is a large or rather deep hole in a rock, close to the sea. The opening, which is a split in the rock 10 feet high and 6 broad, is on the side next the sea. When this is entered we find ourselves in a round place of about 30 yards in diameter and about 30 feet high, enclosed by perpendicular rocks. The rocks consist of a soft red sandstone with veins of quartz. Here and there, especially in the lower part, we find fissures and rents, in which a great many swallows and bats harbour.

The rock is closely washed on the side next the sea by the water and has large spaces like niches. The bottom of the grotto, like the shore, consists of a fine sand. The trees which grow on the rock completely overshadow the grotto and maintain in it a delicious coolness.

Passing to the natural productions of the Archipelago, we find amongst the minerals, besides the kinds of stones and soils already noticed, tin and coals. The tin is found on different islands, such as Sinkep and the Karimon group, but as far as I am aware it is only worked on some parts of the S. E. coast. The production is diminishing and at present does not exceed 600 piculs yearly which must all be delivered to the Sultan. Nearly the whole of it is sent to the Singapore market where it brings from 18 to 20 Spanish dollars a picul. The quality is similar to that of the tin of Banka and Billiton, but the ground is not so rich in ore.

The coal is found on the east coast of Sumatra along the Riteh river, but up to the present time it has only been worked to a trifling extent and sent to Singapore. The quality is only middling, but this is perhaps to be ascribed to the fact that hitherto only the surface coal has been tried.

Many different kinds of timber are found in great abundance, and furnish wood suitable for carpentry purposes and ship masts. Some fine kinds are very pretty and are used for furniture, kris sheathes &c.

The following list, although far from including all the kinds, mentions the most important, as well as the purposes to which they are applied.

Temetu. A very durable, hard and heavy wood; grows to a thickness of 6 to 7 feet and a height of 70; used for the frames of doors and windows, posts of houses, lower beams of bridges, planks and laths, fences &c. It is not very abundant.

Temetu Passir. Less durable than the preceding, has a thickness of 4½ and a height of 70 feet; not very plentiful. Used as above.

Tempinis. Heavy, hard and durable wood, of a red colour; used for posts of houses, lower beams of bridges, poles for pepper vines; does not rot in the ground; is very plentiful and grows to a circumference of 7 to 8 feet, it is very branchy and is seldom useable at a greater height than 30 feet.

Balon. Heavy and useful building wood, found in abundance and much used for beams, posts, lower beams of houses and bridges, floor planks of warehouses, native dwellings, bridges, sea piles &c., masts of Chinese and Siamese junks, prahu-topes &c. It is to be had of the thickness of 10 and the length of 100 feet, straight stem. Largely exported to China.

Balon bunga. Very hard and durable, beautifully variegated and capable of being finely wrought and polished. Found in abundance, and besides other purposes is used as a furniture wood in making tables, stools, benches, chests &c. Grows to a height of 60 to 70 feet; greatest thickness 7 feet.

Kranji. The hardest of all kinds of wood; has much resemblance to guaicum wood; very durable; is used in making the rudders and anchors of junks. It is dark brown in colour, fine in the grain, very resinous in smell and is plentiful.

Kledang. Good building wood for houses, rudders, Chinese coffins; is abundant and grows to a thickness of 7 and a length of 55 feet, the fruit is eaten.

Petaling. Good for house building; thickness 4 and length 50 feet. The fruit is eaten. Very abundant.

Dene-daru. Is scarce, used for house building, lower beams of bridges, and sea piers; breadth 5 and length 500 feet.

Kempas. Scarce; used for rudders of junks, bellows for tin smelting, also for charcoal for smelting tin ore.

Seraya batu. Plentiful; good for planks, laths, rafters of houses, sampans and small vessels; grows to a thickness of 8 and a length of 50 feet.

Seraya Kapur. Very plentiful; use and size as the last.

Kelad merah, Kelad puteh. Very plentiful; used in house building, for pillars, ceiling rafters, girders &c; circumference 4 and length 36 feet.

Merawan batu. Very plentiful; used in house building, also for masts of junks; circumference 7, length 70 feet.

Merawan bunga. Very brittle; only used for firewood.

Kemap used for pillars, ceiling rafters, wall plates &c; circumference 4, length 36 feet.

Medang Kladi, Medang Kuning. Plentiful; good for planks, roof rafters and laths in house building; circumference 6, length 40 feet.

Resa bukit, Resa paya. Plentiful; used for sampans and vessels, pillars of houses; grows to a circumference of 4 and a length of 40 feet.

Kruing. Plentiful; used for floor planks of native and Chinese houses; dimensions 8 and 90 feet. The wood oil is procured from this tree, which is used for preserving sampans and others kinds of wood work. In Siam it is also used, in the absence of *balow*, for masts of junks and topes.

Medang paoh, Medang antu. Plentiful; used for planks, sampans; the wood is soft but durable; measures 5 feet by 120.

Medang buaya. Seldom found; used for incense in China.

Pelawan bukit, Pelawan paya. Plentiful; good for rafters of native houses; measures 4 feet by 36.

Pelawan toda. Scarce. Less strong than the two foregoing kinds but used for the same purposes.

Pelawan. Plentiful, especially at Galang; used for house building, native oars &c.

Selumar. Plentiful. Used for posts and beams of houses, posts for buoys, ladders &c: measures 5 by 30 feet.

Tiob tiob. Light coloured, heavy wood, found in abundance and used for house building; not affected by the worm; measures 2 by 60 feet.

Riang Riang. Very plentiful; used for housebuilding, fences; two feet thick by 60 feet high.

Kayu pesah. Seldom met with; good for housebuilding; with straight stem, 3 feet thick by 120 long.

Pisany-pisang. White wood, light but very tough, very plentiful and used for oars of European boats.

Empagar. Not very abundant, used for housebuilding, posts, ladders, 3 feet by 100.

Serondee. Not plentiful; used only for fire-wood; splits easily, 2 feet by 100.

Bintangor Bunga. Plentiful. Used for housebuilding, posts, ladders &c., also for masts of native vessels; is a good tough wood, but easily bent; size 3 feet by 100.

Bintangor Achu. Same as above; the bark is also used for roofing houses.

Bintangor Janhar. Same as foregoing, but is a better and stronger kind.

Bintangor bunot, Bintangor batu. Strong kinds of wood; size and use as above. The Orong Laut call the bintangor in general *muha*.

Rangaai. Plentiful; used for oars and paddles.

Rangas. Is very plentiful and yields a fine wood, well adapted for furniture, although less pretty than the *balow bunga*; the roots are used for kris sheathes.

Merliling. Scarce; only used for rafters of houses &c., $1\frac{1}{2}$ by 60 feet.

Lankuas. Abundant, only used as fire-wood; size $1\frac{1}{2}$ by 60 feet.

Lempunei. Abundant and used as fire-wood; size 2 by 80 feet.

Brombong. Scarce; used for planks, tables, house posts &c.; size 4 by 100 feet.

Kayu Arang. Seldom met with, the wood is not so hard and black as the usual ebony; used for paddles, oars, house building &c. size 4 by 60 to 80 feet.

Krambenia. Abundant; fire-wood; size 4 by 90 feet.

Kelukub. The best tree bark for covering houses.

Teiap. Not abundant; only used for fire-wood.

Bienjow. Scarce on Bintang and the neighbouring islands, but plentiful on Banka and Biliton, used there for oars.

Trontoom. Plentiful on Bintang, yields a very tough wood, which is not affected by the sea worm; straight in the stem; size 5 to 6 feet by 120; very good for masts, also for posts for bridges &c.

Tropo. Plentiful; light coloured tough wood, much used for European oars; size 5 by 100 feet.

Gawe tandu, Gawe buaya. Scarce; exported to China, where it is used for incense and sometimes brings 30 dollars per picul; the heart of the tree is only used for this purpose; size 5 by 120 feet.

Gawe medang. An inferior kind of the foregoing wood.

Gelam tikus. Plentiful; used for fire-wood; 2 feet by 60.

Merbulan. Scarce; a soft wood; used only as fire-wood; size 2 by 60 feet.

Keta udang. Red soft wood; used for fire-wood.

Metapal. Scarce, a soft wood which soon decays.

Percha. Formerly plentiful, but now seldom met with; yields getah percha; the wood only used for burning, size 5 by 100 feet.

Nibong. Plentiful, when split used for floors of native vessels and houses; a brown wood with black stripes, also used for furniture and masts of small vessels.

Nangka. Cultivated, not found in the jungles; the wood used for house building and kris sheathes; size 4 by 60 to 80 feet.

Bengkü. Scarce; used for planks, sampans &c. size 3 by 90 feet.

Perpat. Abundant; tough, good for knees of native vessels; grows on the shore; size 3 by 60 feet.

Penaga Laut. On Java known as *jamplong*, a crooked wood, much used for knees in large and small vessels; the bark used as medicine; size 5 by 60 feet.

Baru laut Seldom found; a straight fibred wood, much used for the stocks of guns and pistols; size 2 by 36 feet.

Bakau tengar. A heavy wood, much exported to China; the bark is used in dyeing cotton cloths, black.

Bakau Found in abundance on the sea shore; yields a very good fire-wood, but from the strong flame unsuitable for the boilers of steam vessels; is easily split.

Api-api. A good fire-wood, used at Singapore for steamers, plentiful everywhere.

Leban. Seldom found, only used as fire-wood; size 1 foot by 60.

Kemuning. A fine flower-bearing tree with thin stem; used for kris sheathes.

Merbau. Plentiful; used for furniture, tables &c.; it is a beautiful, hard wood and takes a fine polish; size 4 by 120 feet.

Menkang. The leaves are used for making kajangs.

Romia, Kewang, Sedan.

Nipa. The leaves used for making attaps.

Singaring, Lembek, Rabut, Semat, Tekam.

Lakha. A shrub, seldom found, and exported to China where it is used as medicine.

Amongst the natural productions which are obtainable with scarcely any trouble, and may therefore be properly described here, are the getah percha, the dammar, the wood oils &c.

The getah percha is a resinous exudation from the taban and percha trees. To procure it the full grown tree is cut down, when the getah flows out. From large trees 15 to 20 catties may be procured. If more carefully collected, especially by tapping, as with the caotchouc and other trees, it might form a permanent branch of trade. The improvident Malay, however, chooses rather to have as much as possible at once, than to enjoy a smaller but more permanent gain. It is for this reason that at the more accessible places on the larger islands, all these trees have already been cut down, and are now only to be met with in the interior, on the east coast of Sumatra, Borneo and the larger islands. The trade in this product from this Archipelago has already greatly diminished, very little being obtainable. Notwithstanding this falling off, no pains have been taken to plant fresh trees. It is true the stumps of the trees already felled again sprout, but these can only be cut at a distance of 30 years. The getah is run into small square pieces called tampang. These are generally 20 to 30 catties in weight; the getah is then very dirty, mixed with sand, chips of wood and other foreign substances, and must therefore be boiled and purified. The colour is light brown, mixed with dark and light streaks. All getah within the jurisdiction of the Sultan of Lingga must be delivered to him.

The dammar is a resin, which exudes spontaneously from different trees, hardens in the air, and falls to the foot of the trees. There are different kinds of it, such as *dammar batu*, *dammar kruyong*,

dammar mata-kuching &c. The first kind comes from *meranti*, *merawan* and *balow* trees; the last, which is clear and transparent, from the *chengal*. The coarser kinds are pounded into small pieces, rolled up in a piece of *upeï*, which is tied together and forms a torch, which is much used for giving light. The finer *dammar mata-kuching* is used as incense and sent to Java.

The *kruing* or wood oil is obtained by cutting a three sided hole, of one foot high and broad, to the heart of the tree, slightly sloping downwards to the inner side for the purpose of gathering the oil; it is then burned with torches; the oil is drawn in this direction and may be taken out of the hole on the sixth or seventh day. This oil is much used for varnishing coarse wood work, such as sampans, houses &c.; it is also used for painting, principally green and white, but must be well boiled before it can be used. It is then as good as linseed oil and much cheaper. The coarse unpurified oil costs here *f.2 recipis* for 12 gantangs; the pure oil is one real of 240 doits for 6 or 7 gantangs.

The *upeï*, of which mention is made above, is the outer envelope of the stem of pinang palms, below the bunches of fruit, and is used for making water lifters (*timba*), packing goods, making torches &c.

The barks of different trees, such as the *bintangor*, *kalukub* and others, serve for thatching houses, &c. For this purpose the bark of the largest trees is taken, in pieces of 3 to 4 feet long and two feet broad. These roofs last several years without requiring renewal.

The *attap*, the usual covering of all Malay and native houses, is formed of leaves of different palm trees, bound together with rattans. Of these there are the *atap puar*, *atap rumbia*, *atap sampit*, *atap sordan*, *atap nipa*, and many others. The usual size are of the length of 3 feet. A distinct kind of *atap*, called *Rajah*, is a little longer. The best *ataps* come from Lingga and the East Coast of Sumatra and cost 60 doits per hundred; the *atap Raja* is a little more lasting. The *ataps* are inserted one below the other and fastened, and form a good water-tight roof which lasts two or three years without renewal.

The *kajang* is formed of the leaves of the *menkwang* sewed together, and is used for the sails of sampans, screens for doors

and windows, divisions of apartments &c. They are of various sizes.

The *kapok* is collected from the pods of the sea cotton plant but is of little value, as it is too short in the fibre to be spun into thread. It is only used for stuffing pillows &c. The true cotton plant is met with here and there, but in too small quantities to allow of the cotton being an article of trade. The outer envelop of the cocoanut palm yields a natural, strong tissue, which is called *kain poko* (tree cloth) ; it is used for making coarse sacking.

The *bambu*, here generally called *bulu*, is found less abundant than on Java and is much less used. Houses are very seldom seen formed of this material.

The rattan is found of many kinds and is extensively used for making ropes, basket work, fish traps &c.

A kind of thread is also prepared from the bark of different trees and the stalks of plants. These are prepared by a rude steeping and beating of the fibres. In this manner thread and rope are obtained from the barks of the *terap* and *bahru*.

The agar-agar, a species of sea weed, is found in great abundance on the reefs exposed at low water, especially on Lingga, Sugee and Mooro. It is sold in a dry state, and a picul properly cleaned is worth from 4 to 4½ Spanish dollars at Singapore. It is used in the making of sweetmeats and boiled with sugar into a kind of comfit.

The *chinchau* is procured from a plant of Chinese origin which is cultivated on the shore, and is prepared in the same manner as agar-agar.

Edible bird nests are found in the rocks and caves at Lingga ; they are as good as those of Java. The white or best kind are sold for 90 guilders a catty.

NOTICES OF SINGAPORE.*

Gaming Farm.

To

Charles Scott,	} Esquires
C. R. Read,	
J. Morgan,	

Gentlemen,

I have the honor to inform you, that in consequence of an extensive conspiracy being discovered amongst the native police to defeat the regulations for the extirpation of gaming, the repeated and earnest representations of the principal Chinese inhabitants in regard to the existing system, and the object itself being found at present of difficult attainment, it has been deemed necessary, pending a reference to the Supreme Government, to license gaming, under the system of restraint and regulation which is detailed in the advertisement, a copy of which is herewith transmitted.

You will have the goodness therefore to suspend all proceedings in regard to the regulation against gaming, until the pleasure of the Honourable the Governor General in Council shall be received.

I have &c.

(Signed) J. Crawford,

Resident.

Singapore, 23rd August, 1823.

*Public Works.**Political Department.*

To G. Swinton, Esq.

Secretary to the Government.

Sir,—I have the honor to report for the information of the Right Honourable the Governor General in Council, that I shall be placed under the necessity of making an expenditure of public money on account of certain works which are of so urgent a nature as to render the delay occasioned by a reference inconvenient and prejudicial to the public service. As the works in question, how-

Original per
James Hutton.

* Continued from p. 348.

ever, come within the strict meaning of those which have received a general sanction from government as indispensably requisite, I trust the expence which will be incurred will be approved of when the necessary vouchers are submitted to the Right Honourable the Governor General in Council.

2. The works referred to will consist of a water course and reservoir, a temporary goal, with some cheap means for dredging and keeping clear the entrance of the river of Singapore; respecting all of which I shall now beg leave to offer such explanation as I hope will satisfy the government, that I do not venture upon any rash or unnecessary expenditure of the public money.

3. With regard to the first work, the water course and reservoir, although a considerable expenditure has been incurred with the view of securing an adequate supply of water for the shipping, this object has never been fully attained, and the works which were constructed, consisting of wells and a reservoir on a small scale, have lately fallen so much to decay that very serious inconvenience has been experienced, particularly by the H. C.'s ships, 12 of which have touched here for water during the last month. The advantages of the port of Singapore depend so much upon its utility and convenience as a place of refreshment that I trust a moderate expenditure with the view of securing this benefit will be considered unexceptionable.

4. The proposed temporary goal is rendered necessary by the total decay of that now in use, which, besides being too small for the present state of the Settlement, is essentially deficient both in point of accommodation and security. It is at the same time in such a state of decay that its repair would be impracticable, and its removal from its present site—the very middle of the town, and one of the most valuable portions of the ground reserved for government, becomes expedient. I had it in contemplation at one time to use as a temporary prison some of the merchant's premises taken over by the government, but the situation of these buildings, and the unsuitableness of their structure for this purpose, dissuaded me from this intention, while I feel convinced at the same time that the construction of a new goal will be a piece of greater economy, as it will certainly be accomplished for a very few months' rental of any of the premises in question which might be supposed suitable to the temporary purposes of a prison.

5. The existence of the river or rather creek of Singapore, as the government is already aware, forms one of the most valuable and striking features of the place, as a commercial port. It is to be regretted that within the last 2 years the entrance of it has been gradually closing by an accumulation of sand, owing it is strongly suspected to the injudicious manner in which individuals have built their wharfs and warehouses, and the effect of which has been to obstruct the natural course of the stream. This circumstance renders some scheme for dredging the river indispensably necessary with the view of obviating the risk of its navigation being entirely obstructed.

6. The removal of the wharfs and warehouses which have occasioned this inconvenience will be one of the principal means of obviating it, but in the meantime some scheme for removing the accumulation of sand already formed is indispensable. The use of a dredging machine, and the employment of persons sentenced to temporary hard labour to work it will be the most effectual and cheapest means of securing this object. I am led to hope that the labour of convicts while thus directed to an useful public object will be a certain means both of preventing their escape, and securing to them that measure of punishment which the law shall have condemned them to undergo.

7. With regard to the amount of expence which will be incurred by these different buildings I am unable as yet to submit any distinct statements. The only one of these works of which an actual estimate has been made is the goal which is not calculated to exceed 900 Spanish dollars. I am in hopes that the water-course and reservoir may not cost beyond 1,000, nor the dredging machine, including the boat, above 1,200 Spanish dollars.

I have &c.

(Signed) J. Crawford,

Resident

Singapore, 9th October, 1823.

Land allotment Committee.

To James Lumsdaine, Esq.

Nathaniel Wallich, „ and

Captain Francis Salmond.

Gentlemen,—It having been determined on the first establish-

ment of this Settlement that the whole space included within the old lines and the Singapore river should be reserved exclusively for public purposes, and His Excellency the Governor General in Council having directed that the land subsequently occupied by individual settlers on the north bank of the Singapore river should be resumed, it has become necessary to fix upon another site on which the European merchants may construct adequate warehouses for the accommodation of the different descriptions of goods collected by them, and no spot has appeared better calculated for this purpose than the opposite bank of the Singapore river now in part occupied by Chinese.

Having consulted with Mr Coleman, by profession an architect, and with others and having myself partially examined the ground, I am not aware of any objection to the plan of building the warehouses on this line, except such as may arise from the additional expence which will be necessary in raising the ground and from some moderate compensation which it may be just to make to the Chinese on account of this removal. Hitherto the European merchants would seem to have laboured under an erroneous impression that they would eventually be allowed to have their warehouses on the side reserved by government, which on many accounts was naturally preferred by them, but this delusion being now at an end, it is to be expected that they will gladly enter into the plan now under consideration and that the activity and energy which is now so conspicuous will easily overcome all minor and comparative disadvantages.

No title whatever can be granted to those individuals who have built store houses on the ground reserved for the Company and they will not have the power to transfer them as property, neither will any new buildings whatever be allowed to be erected thereon by individuals, and with the view of placing the mercantile community with regard to advantage for building, on the most equal footing possible, it is proposed to levy by way of ground rent or otherwise such a tax on the ground temporarily occupied by the existing buildings as shall be equivalent to the greater expence which may be incurred in laying the foundations on the opposite side of the river.

It is proposed that an embankment, which may at the same time serve to confine the river and drain the adjacent ground and afford the convenience of a long line of wharf in front of the warehouses, should in the first instance be constructed along the south side of the river, from the road opposite Ferry point to that which has been marked out for the intended bridge, so as to form an extensive crescent of about six or seven hundred yards, in the rear of which the range of the warehouses may be built on one uniform and approved plan.

In prosecution of the plan above stated, it is further proposed that with the view of preserving uniformity and ensuring the goodness of the materials and workmanship, this embankment or line of wharf should be constructed under the immediate superintendence of Government, the expence to be repaid by the individual, as the lots may be appropriated. Allowing sixty feet for the front of a warehouse and a space of 12 feet between each, it is estimated that the projected site is calculated to afford room for between 20 and 30 separate and commodious buildings. The depth proposed to be allotted to the range of buildings is 100 feet from the wharf for the warehouses and 50 feet in the rear for a yard, at the back of which will run a High Street, so as to admit of a back front to the buildings on the land side.

Previously, however, to the adoption of a plan involving such important interests, I am desirous of obtaining the best and most competent advice which circumstances admit, and with this view, I have appointed you to be a committee for the purpose of taking into your most deliberate consideration the plan now proposed, in all its bearings, and reporting in how far you deem the same advisable and advantageous and as preferable to any others which offer.

In selecting you for this important duty, I have been influenced no less by a full confidence in your peculiar qualifications and ability to form a correct judgment on the subject, than by the circumstance of your being wholly unconnected with any of the local parties, or conflicting interests which have heretofore so unfortunately prevailed at this Settlement.

I am &c.

(Signed) T. S. Raffles.

Singapore, 17th October, 1823.

Singapore Institution.

Extract from a Public General Letter from the Honorable the Court of Directors, dated the 11th May, 1825.

61. We entirely agree with you in thinking that the establishment of an Institution of this kind (however useful in itself) at a time when it was as yet uncertain whether Singapore would continued to form a part of the British dominions was premature.

62. We are however disposed to give all reasonable encouragement to the education of the natives, and we shall not therefore withhold our sanction from the grant of a monthly allowance of 300 dollars in aid of the establishment, for such time as it shall be required. And we do not disapprove of the endowment of each of the departments with an assignment of 500 acres of uncleared ground on the usual terms.

63. You will be careful, however, to confine the expences of this Institution, so far as the Company are concerned, within their present limit.

64. With regard to the donation which Sir T. S. Raffles made on account of the Company to the fund raised by subscription for the establishment of the Institution, and of which you have referred the ultimate sanction to us, we are unable to express any opinion on the subject, as we are not informed of its amount, Sir T. Raffles having only said that it was equal to his own personal subscription. If however you shall deem the amount unobjectionable, we shall not refuse to sanction it.

(A true extract)

(Signed) C. Lushington.

Secty. to the Governmen'.

Remarks on the Excise Revenue.

In the official year ending 30th of April, 1823, the actual revenue of Singapore was \$25,796. Each farm was at this time in the hands of one individual, or in other words a complete monopoly on the principle still pursued throughout all the Dutch Settlements. The population was 10,683.

As soon as the privileges had expired I new modelled the whole system. The plan assumed was one which I had partially acted

upon when Resident of Surabaya and Samarang in Java, and is not only simple but as it appears to me very obvious. Each farm is split into 5-8-10 or more according to circumstances, and the license for holding one of the farms so divided is sold by public outcry to the highest bidder. On this system competition is necessarily extended, biddings are no longer confined to two or three wealthy individuals and combinations are rendered impracticable or difficult, while the greater part of the revenue, which on the old system went into the pockets of the principal farmer, goes into the public coffers.

In May 1824 the farms were sold for one year on the new principle and instead of 25,796 fetched at once 60,672 dollars, as follows:—

Opium.....	\$23,100
Spirit.....	10,980
Chinese Gaming.....	26,112
Pawn Brokers.....	480

This extraordinary increase, however, requires some explanation. The revenue of 1823 was not sold annually but quarterly and for half a year the gaming farm was done away, but a pork farm substituted for it. The highest of the quarterly sales of this year would have given the following sums for the respective farms, reducing it from the depreciated currency of the time to a legitimate standard.

Opium.....	\$19,380
Spirit.....	8,184
Gaming.....	9,336
Pork.....	3,624

40,524

In the new plan it will be seen that the pork farm was abolished and that of pawn-brokers introduced. Making allowance respectively for these, the real increase obtained was above 57 per cent.

In April of the present year the system was considerably improved and the subdivision of the licenses carried still further. The results are given in detail in the accompanying papers, but for convenience I shall recapitulate some of them.

Gaming.....	\$36,504
Opium.....	24,384
Spirits.....	11,292
Pawn Brokers.....	756
Markets.....	2,526
	<hr/>
	75,462

Our population now was 11,851, not 14,000 as stated in the *Chronicle*, this last amount being supposed to be made up from the average of the crews of boats and ships frequenting the port. The revenue of 82,000 dollars given on the same authority is made up by quit rents &c., as will be seen in one of the accompanying documents. It will be perceived that our increase of population, and hence the extension of our consumption from that cause, is but inconsiderable and by no means in proportion to that of our revenue. It is fair to argue therefore that the destruction of the monopoly and the splitting of the farms has been beneficial. Through the improved system, after getting rid of the tax on pork, the revenue of the settlement in short has in two years been nominally somewhat more than doubled but in reality trebled.

I venture to anticipate a material improvement in the revenue of Prince of Wales' Island from the adoption of a similar system. Were the revenue of the two settlements to be in the proportion of their respective populations, that of Pinang with 55,000 inhabitants, ought instead of 72,000 dollars per annum, to be about 350,000. So large an augmentation, however, cannot I think be reasonably expected for the following reasons. The population of Singapore consists of a far larger proportion of Chinese than that of Pinang, and among these there is a much smaller proportion of women and children, the greater part of the settlers coming to us directed from China, and being as yet unprovided with families. In Pinang there is a much larger proportion of penurious and money saving Chuliahs than in Singapore, and since the acquisition of inhabitants from Quenda a still greater proportion of Malays, without question the least useful of the people that range themselves under our standard. I entertain so high an opinion of the industry, skill and *capacity of consumption* of the Chinese, that I consider one Chinaman equal in value to the state to *two* natives of the Coromandel Coast and to four Malays at least. If to the

186,000 dollars, stated by Mr. Fullerton as the ascertained profits of the present monopolist, be added the actual revenue of 72,000 dollars, the aggregate of 258,000 will hardly be too large a sum to expect from the improved arrangement. This will still be in the proportion of 38 per cent less than the revenue of Singapore, which I should consider a proper allowance for the superior efficiency of the population of the latter Settlement as already supposed.

I may here add a few observations on the different farms in detail. We divide the opium farm here into five licenses. I am now convinced, however, that it ought to be divided into ten, for although we had the advantage of competition at the sale, the farmers have since coalesced. The augmentation in this farm has been smaller than the rest, only about 25 per cent, this has been partly owing to the farm not being sufficiently subdivided, and partly also to the duty itself not being of a nature to admit of improvement by subdivision to the same extent as the other farms.

The arguments for restoring the gaming farm are given at length in the papers submitted to Mr Fullerton. The attempts made to put the practice of gaming down appear to me little better than *charlatanerie* in such societies as those of our eastern settlements, where the mass of the inhabitants is habitually addicted to play and where it is viewed only as a harmless amusement. It is said to be disgraceful to gain a revenue by gaming. Not surely more so that making a revenue by drunkenness, for both as far as regards gaming and the consumption of wine and spirits, it is impracticable to distinguish between vicious and harmless indulgence. At all events it is consistent with every principle of wise legislation, that that which cannot be prevented ought to be regulated. The gaming farm of Singapore is divided into twelve licenses. The houses are all in one street and contiguous to each other, so as to be under the immediate eye of the police. This is the farm in which the greatest augmentation of revenue has taken place, and owing as I conceive entirely to the minute subdivision of it. The increase amounts to very little less than 300 per cent. I ought to mention that during two years and a half not a single quarrel or accident has taken place in the gaming houses.

Our *Spirit farm* like that of opium is divided into five licenses. I am not quite sure but this also ought to have been divided into

ten. The motive for making the number so few as five was a consideration of the superior capital required by the farmers for their distilleries. This objection will not hold with the superior consumption and population of Pinang. Our tax is derived entirely from domestic spirits, Bengal rum, Cochin Chinese arrack and Dutch gin or Hollands. The two last were imported so cheaply that the first could not compete with them. With the exception of gin, European and American spirits and wines are not meddled with.

These are taxed at Pinang, I should conceive unnecessarily, as from their high price and limited consumption, the revenue derived from them must be a mere trifle and the operation of the duty, from the character of the consumer, will be somewhat unpopular or vexatious.

The system of pawn brokers licenses was instituted more as an object of police than of revenue. In the second year the trifling amount of this had increased above 57 per cent, chiefly I believe through improved regulation and management.

There is one source of revenue at Singapore which cannot be obtained at Pinang, the *markets*. We have at present but one which is too much crowded, this has scarcely cost the Government one year's purchase. Two more must be constructed for which I have authority. The market consists of 40 stalls divided into 8 lots, sold separately to the highest bidder to prevent monopoly. No one is compelled to sell in it, so that the revenue derived from of it, is unexceptionable. The market is in short a great source of accommodation to the public instead of a tax.

There are two farms at Prince of Wales' Island which we have not here, the farm of pork and that of sirih or the leaf of the betel pepper. I abolished the first, which was approved by the Governor General, and the second was never established. I venture to pronounce the taxes on pork and sirih as decided nuisances. They are both at variance with every maxim on which a tax can be defended, the first is a tax on a necessary of life, where that necessary must naturally be high priced without any taxation. It falls exclusively upon one class of the people and this the most industrious and productive of the community. The second is also a tax on a necessary of life, for the betel is as indispensable to every Asiatic inhabitant of our Eastern Settlements as salt; the same objections

also apply to a tax upon it as to one on this last commodity, that is, it falls heavily upon the labouring, and is scarcely felt by the higher class.—The produce is, I believe, very inconsiderable at Pinang, and I am led confidently to think that if these two imposts were abolished a proportional increase might be looked for in the more legitimate sources of revenue, while the measure in itself would be extremely popular among the native inhabitants, and thus facilitate the introduction of the improvements submitted in the earlier parts of this paper.

With respect to the number into which each object of revenue should be subdivided and the particular regulations necessary to the proper organization of the system, no specific rules can be laid down,—but the following general maxims may safely be assumed. 1st. Each farm should be so divided as to prevent combination, which is the same thing as to insure the highest revenue to the government and the greatest accommodation to the public. 2nd.—The farms should not be subdivided beyond the point which will insure respectability in the purchaser of the license, a precaution necessary to insure the realization of the revenue. Attention must be paid to the amount of capital requisite to the farming of the different branches of the revenue; the spirit farm demands the largest capital, the gaming farm the smallest. 3rd.—The number of licenses must also be in the proportion of the population. 4th.—The licenses for opium and spirit should authorize the holder to open as many shops, taverns &c. as he may think proper throughout the island, on due notice given to the magistrate. The licenses for gaming and pawn-brokers will of course convey only the privilege of one house, so many for George Town, so many for Point Wellesley, and so many for James Town.

The collection of the revenue on the new system, as it will be more in detail and as the payments will be made monthly, will be more troublesome than on the monopoly system, but it will at the same time be more secure, as the failure even of several of the farmers will be unimportant. Judging from our experience here the difficulties to be anticipated will after all be very trifling when the novelty of the plan is got over and the system is matured. The whole defalcation of the Singapore revenue for 1824-25 amounted only to 225 dollars, a single month's instalment of a single farmer.

The Secretary of Pinang draws a commission on the farms, on what principle I am not aware. It would be well if an additional salary were given in lieu and the percentage bestowed on the collector who will necessarily have all the trouble. No commission is drawn at this place, as I collect the revenue personally.

The system of farming the revenues, although at home there exists or at least did exist strong prejudices against it, is approved and recommended by the modern political economists, especially by Bentham. Under the peculiar circumstances of society in the Eastern Islands, I am disposed to consider the system of direct management as far at least as excise duties are concerned, as little less than impracticable. We have no instruments to work with; we could never contend against the chicanery and suppleness of the Chinese, they themselves are far too knavish to be employed, and what would be worse perhaps than all, the government would be brought into a frequent and odious collision with the Natives, and compelled to employ a vile, expensive and corrupt crew of native excise officers.

(Signed) J. Crawford,
Resident.

Singapore, 21st October, 1825.

Drainage of Singapore Town.

We the undersigned inhabitants of the town of Singapore, do severally bind ourselves, our heirs and assigns, to pay to Government a proportionate share of the expence of draining the town of Singapore, the whole not exceeding 1,255 dollars, and in default of payment, it shall be lawful for the Resident Councillor on behalf of the Honorable Company to levy the sum due by each defaulter by distress and sale of his property in lands, houses or chattels.

The degree of advantage derived by each person from the drainage, as nearly as the same can be calculated, shall be considered the principle on which the assessment shall proceed, and for the purpose of effecting the assessment, the Resident Councillor will appoint competent persons to ascertain the amount of each share after the drains have been constructed.

Signed by A. L. Johnston & Co for self and J. Crawford

” C. Thomas
” G. Mackenzie
” Hugh Syme
” Isaiah Zacheriah
” Spottiswoode & Conolly
” Charles Scott for self and D. S. Napier
” Guthrie and Clarke
” John A. Maxwell
” Morgan, Hunter & Co
” Andrew Farquhar.

Revenues of Singapore.

To John Anderson, Esquire,

Secretary to the Government of

Prince of Wales Island,

Singapore and Malacca.

Sir,—In undertaking a retrospect view of the revenues of Singapore, with the object of fulfilling the orders of Government conveyed in your letter dated 19th January, and received on the 19th ultimo, it is a source of gratification to observe that there has been a regular increase from the commencement, and that there is a prospect of a continuance of the same result, if similar wise and forbearing measures for preserving and increasing the population are maintained, for, in my opinion, any alteration introduced in this early stage of its formation that might affect so material a means of our prosperity, or that would excite discontent and emigration to other ports, will cause a proportionate decrease in the several branches of the revenue, one assuredly being the offspring of the other, and as evident, that there can be no revenue without a people to produce. This position is further supported by considering that one of the objects of establishing Singapore was to form an emporium for the concentration of the produce of the eastern countries and islands for the supply of European and western India, and to remove the risk and danger to which vessels and their crews formerly were exposed by going to these native ports in search of that produce.

2. I consider the locality of Singapore as the cause of those commercial advantages which are at present the only attraction to resort there, and that consequently the population is little better than an uncertain and a changing assemblage of people, which must, from the nature of things, continue so, until families are multiplied and become fixed, the country cleared of its forests and rendered accessible, and agriculture attract a greater proportion of the public attention.

3. It is only necessary to present in confirmation of these premises, an abstract statement of the revenue from the period of its commencement up to the close of the present official year, marked A in this despatch, wherein it will appear that from a collection amounting to Spanish dollars 15,925, it has gradually increased to Spanish dollars 77,316, and in the following detail of each item, I shall endeavour to account for the expence, with a view to impress on the Honorable the Governor in Council the expediency of permitting the present system to continue for some years longer.

Opium.

4. The statement shews an increase in receipts in proportion with that of the population, but they exceed in regular ratio from the year 1823 to the present period, which I believe is to be ascribed to the improved method adopted by Mr Crawford, of putting up the farms in subdivided lots, which may have had the effect of preventing combination among the bidders and exciting competition, and another cause may be deduced from the increased population, consisting chiefly of Chinese who are the principal consumers. I am informed, however, that we may look forward to a decrease in the revenue for 1827-28, on account of the gambier cultivation being nearly dropped as a losing concern, in which Chinese were solely employed, and they will probably quit the place for other situations more productive. Under the favourable exhibition of this part of the revenue, I cannot attempt the suggestion of any improvement, beyond the inflicting of a severer punishment on the offenders of the opium regulations by adding labour to, and extending the

	Receipts.	Population.
In 1820-21	7,345	—
" 1821-22	9,420	—
" 1822-23	14,200	—
" 1823-24	22,830	10,683
" 1824-25	24,000	11,851
" 1825-26	24,080	12,855
" 1826-27	24,600	13,732

period of their confinement to six months, experience having proved that 3 months does not check the infringement.

Arrack.

5. From the year 1820-1822 the increase is \$1,810, from 1822 to 23 it rose to \$2,675 being an increase in 3 years of \$4,485 or \$1,495 per annum, in 1824 it fell to \$480, giving a decrease of \$1,015, but in 1825 nearly recovered itself, the increase being \$1330. A most extraordinary rise of \$2,400 took place in the year 1826.

	Receipts.	Population.
In 1820-21	3,305	—
" 1821-22	5,115	—
" 1822-23	7,790	—
" 1823-24	8,270	10,683
" 1824-25	9,600	11,851
" 1825-26	12,000	12,855
" 1826-27	12,000	13,732

6. The decrease in 1823-24 is to be attributed to a greater ingress of population in the preceding years, a natural event on the first establishment of the settlement and the subsequent rise in 1825-26, to the gradual increase in population, and to the greater capital required to commence with, than is the case with other farms, whereby competition is not so great, and is kept at greater distance.

Gaming Farm.

7. The increase in this revenue has been nearly equal the first 3 years and averages an annual increase of dollars 2,112. For three following years the revenue shews an increase averaging dollars 8,052 per annum. The last or present official year, exhibits a decrease of 3,267.

	Receipts.	Population.
In 1820-21	5,275	"
" 1821-22	7,335	"
" 1822-23	9,500	"
" 1823-24	15,076	10,683
" 1824-25	25,680	11,851
" 1825-26	33,657	12,855
" 1826-27	30,390	13,732

8. The causes of increase are certainly to be attributed, in some degree, to the regular one—population, and in that particular class of it most addicted to gaming, but more particularly to Mr Crawford's new arrangements in subdividing the license into lots which had the effect of exciting competition in the bidders.

9. The decrease in the last year is considered to have arisen from an excess of competition in the bidders of the preceding years, which caused the farmers to give very little, and to render them more cautious in 1826-27, when it appears the farm was put up

for sale three times, ere the present sum it now produces was obtained.

Pawn Brokers.

10. There has been a gradual increase in the receipts from this farm, having nearly doubled itself every

<i>Receipts. Population.</i>		
In 1823-24	360	10,683
„ 1824-25	720	11,851
„ 1825-26	1,332	12,855
„ 1826-27	1,332	13,732

year since its establishment in 1823-24.

The causes are to be attributed to its nature being at present better understood and to its value not having previously been duly appreciated from being a new source of revenue, the approximation of its rent for 1825-26 and 1826-27, establishes this supposition, as well as of its not decreasing in amount, the license being held by three separate individuals.

Rents.

11. The decrease in this revenue in 1825-26 to one half its original receipts, is solely to be ascribed

Receipts for Houses & Markets.

In 1824-25	3,174
„ 1825-26	2,590
„ 1826-27	5,223

ed to government having occupied for their own purposes those houses which they formerly rented to Merchants,

who have, in time, supplied themselves with dwellings of their own.

12. The increase of 1826-27, is *ascribable* to the method adopted by Mr. Crawford for letting the markets in subdivisions of lots, which have alone produced in that year \$4,776.

Fines and Fees.

13. The high rate of these receipts in 1824-25 is to be ascribed to some heavy fines levied by Mr Crawford

<i>Receipts.</i>	
In 1824-25	3,514
„ 1825-26	2,132
„ 1826-27	2,523

on 3 or 4 wealthy Chinese, and the subsequent decrease to the absence of such a contingency, and to the people becoming

more orderly through the activity of the European Constables.

Post Office.

<i>Receipts.</i>	
In 1824-25	311
„ 1825-26	423
„ 1826-27	384

14. There appears to be a small decrease of 39 Spanish dollars in the last year.

15. With reference to any possible improvement to be introduced in the existing revenue, I would beg, in the first place, to recommend an abstinence from any fresh imposts that would press upon the convenience and necessary comfort of the native population, and consider their luxuries and vices rather a more fit object; but, for the reasons already assigned, I should think a future period for its introduction better suited to the present views of rendering the population more settled. It does not appear to me that wood, attaps, pork and sirih are, under these circumstances, proper objects of taxation, the two latter are necessities of life to the lower and most laborious class of people, and the two first are equally necessary, for some years to come, to provide habitations for those who wish to sojourn at Singapore. Whenever wood becomes an article of export to the native, or is appropriated to other purposes than that of building on the Island, a fair opening would then present for levying a tax on it.

(To be Continued.)

CHINESE DIVORCES.

It is pretty certain, from observation, that where divorces are easily obtained, the state of moral virtue is very low, and the duties and obligations of relative life, but little understood. There may, however, be an extreme in this as well as in other things: it may be made too difficult; and the consequences to virtue and to society, in that case, are very injurious. The law of God is doubtless, in this, as in all other things, the best and least expensive guide. Still, some of our readers may not be displeased to know the Chinese law on this subject. The following causes of divorce are enumerated in the Chinese criminal code. They are all unfortunately supposed to arise from the woman.—A wife may be divorced,

1. For barrenness.
2. For adultery.
3. For refusing to serve her father-in-law and mother-in-law.
4. For much speaking—we suppose evil speaking is meant.
5. For theft.
6. For jealousy.
7. For disease—e. g. some inveterate kind of leprosy, &c.

There are, however, *three exceptions* in favor of the wife, admitting even that several of the above can be clearly proved.

These are:—1. If she have mourned three years for her father-in-law or mother-in-law. 2. If, when the parties were married, the husband was poor, but has since become rich. 3. If at the time of their marriage, the woman's parents or relatives were alive, but have since died, so that she has no home left her—if any one of these three things can be proved, she cannot be legally put away.—In case of a wife's deserting her husband, the law enjoins that she be beaten one hundred blows, with a rod, and leaves it at the husband's option either to give her away to another man, or to sell her. If a wife elope from her husband, and marry another man, she is to be put to death by strangling. From these notes, the reader will perceive that the Chinese law is sufficiently severe in regard to the offending female. The law gives the wife no power to divorce her husband. A separation, however, she may claim.—*Indo-Chinese Gleaner*, 1820.

ETHNOLOGY OF THE INDO-PACIFIC ISLANDS.*

By J. R. LOGAN:

LANGUAGE.

PART II.

THE RACES AND LANGUAGES OF S. E. ASIA CONSIDERED IN
RELATION TO THOSE OF THE INDO-PACIFIC ISLANDS.CHAPTER V. (*Continued*).

ENQUIRIES INTO THE ETHNIC HISTORY AND RELATIONS OF THE DRAVIAN FORMATION,—EMBRACING NOTICES OF THE FINO-JAPANESE, CAUCASIAN, INDO-EUROPEAN, SEMITICO-AFRICAN, EUSKARIAN AND AMERICAN LANGUAGES.

Sec. 6. THE SEMITICO-AFRICAN LANGUAGES.

5. ZIMBIAN† OR SOUTH AFRICAN.‡

Distinctive characters:—Great agglomerative, harmonic and vocalic tendency, with considerable agglutinative power; an ela-

* Continued from p. 265.

† The reason which renders this name an appropriate one will appear from the subjoined remarks. I prefer it to Kafirian, as that name has become restricted to one of the four classes of the most southern group.

The remarkable agreement of the languages in which this formation prevails—not only in general phonetic and ideologic characters, but in pronouns, definitives and particles of all classes, and in numerous other words—proves that the formation has originated in one language, that of a powerful nation which colonised or conquered the greater portion of Southern Africa. The physical character of the existing tribes varies considerably, and as is the case in the Nilotic and Nigritian provinces also, a race of a more Iranian type appears to have intermixed with one of a coarser organization. To the energy of the former race it is probable that the prevalent development of the linguistic formation, its rapid spread, and the civilisation which generally attends it, are to be attributed. If the formation originated in the east, it probably at one time occupied the Somali and Galla area, and was thence diffused to the south west. But it does not necessarily follow that the centre of its greatest diffusion was in its original location. It is, on the contrary, more probable that the nation which spread its language with so much purity over so wide a space was placed further south. The Western Zimbian tongues, from the Gaboon to Benguela, have, in many respects, a close and direct agreement with the Eastern languages. The southern appear to be a distinct offshoot. Whether they were derived from the eastern coast or the interior, it is obvious that the western languages must have been derived directly from the interior. May it not be that the formation, in its present development, was disseminated on all sides from a powerful and civilised inland nation? The formation appears to be continuous from the eastern coast to the western, and all our present information is in favour of the existence of more populous and comparatively civilised nations in the interior than are found on the coasts. Amongst these nations the most celebrated is that of the Ka-Zembe. The same name is found amongst the Kafirian tribes to the south, and in the east it is very common, e. g. the people *Mo-zimba*, the rivers *Mo-zimba* and *Zambese*, the ancient Madagascar race of *Va-zimba*. The proper name of the most northern tribe on this coast, the so-called *Suahili*, is *Ka-zumba*

[‡ For this note see next page.]

borate system of formative and agglomerative particles,—embracing, in particular, singular and plural, and, to a certain extent, rational or personal and inanimate, (but not masculine and feminine,) definitives, which are prefixed to all substantives, and are repeated prefixally, in contracted and euphonically permuted forms, in connected substantive and attributive words (qualitives, verbs &c), thus constituting the main structural element of the formation. This recurrence of the same initial and vocalic particles in connected words gives to the phonology a regularly alliterative and mimic character, which no other formation in the world possesses to the same extent, and which contrasts remarkably with the curt, consonantal and non-musical phonology of the Semitico-Berber and Egyptian languages.

(Krapf). The most rational explanation of the prevalence of the name is that it was that of the parent nation of the present Southern tribes. In Ki-Nika and Ki-Kamba *zumbe* means “king,” u-*zumbe* “kingdom,” and in Suaheli *jambo* means “state.” The name of the river Zambese has been referred to a different root signifying “fish.”

Mr Appleyard enumerates the divisions of the Southern Zimbrian languages as follows:—

1. The Kongo branch, comprising the Kongo dialects, the Bunda, Molua and Benguela.
2. The Damara dialects.
3. The Sechuana dialects.
4. The Kafir branch, comprising, 1st the Kafir proper spoken by the Ama-kosa, the Aba-tembu, and the Ama-mpondo, 2nd the Zulu, 3rd the Fingoe of the Ama-fengu, Ama-baca &c.

Between the Fingoe and the widely spread Suaheli of the east coast there are several other Zimbrian languages, including the Makua. On the west coast the Mpongwe and some of the adjacent languages are mainly Zimbrian, while its influence is still powerful in the Nigerian province, and traceable in the greater portion of Mid-Africa. The northern limits of the pure Zimbrian province and the influence of the formation in Mid-Africa will be best considered in the following sub-section.

‡ “Mithridates”; Prichard’s Researches &c; J.W. Appleyard, “The Kafir language &c” (with a Grammar of the ama-Kosah); E. Casalis, “Études sur la langue Sechuana”; J. L. Krapf, “Outline of the Elements of the ki-Suahili language with special reference to the ki-Nika dialects”; T. Dwight, “Sketch of the Mpongwes and their language” (Trans. Am. Ethn. Soc. ii. 283); J. L. Wilson, “Comparative vocabularies of the principal Negro dialects of Africa,” i. e. Mandingo, Grebo or Kru, Aekwom, Fanti, Efik and Yebu (Journ. Am. Or. Soc. i. 337), Batanga, Panwe, Mpongwe, Kongo, Embonna, Suaheli (Ib.) with Notes by the Publication Committee; J. C. Bryant, “The Zulu language,” (Ib. 392); Lewis Grout, “The Zulu and other dialects of Southern Africa” (Ib. 397); Pott, “Verwandtschaftliches Verhältniss der Sprachen vom Kaffer-und Kongo-Stamme” (Zeitschrift d. Deutschen Morg. Gesell. ii. 5, 129); Ewald, “Ueber die Völker und Sprachen südlich von Aethiopien,” with short comp. voc. by Krapf of Suaheli, Wanika, Wakamba, Ukuafi and Msegua, (Ib. i. 44); Gabelentz, “Ueber die Sprache Suaheli” (Ib. 238); Salt, Voc. of Makua, Monjou and Sowouli, i. e. Suaheli (Appendix I., p. i., to “Travels in Abyssinia”); Krapf, “Vocabulary of Six East African languages,” (Kisuaheli, Kinika, Kikamba, Kipokomo, Kihiau and Kigalla); M. S. S. vocabularies and gram. notices of Makua and Suaheli from native informants (J. R. L.)

General characters. The phonetic elements embrace the sonants *g, d, b, z*, the aspirates *dzh, f* and *v*, a guttural *r* and 3 click sounds. Although the formation is vocalic there are several classes of combinable consonants. The nasals *m* and *n* precede several other consonants, and the aspirates *h, dh, ts*, and *tsh* have a more limited prefixual range. The liquids *hl, tl* also occur in the southern group, the latter being very common in Sechuana and sometimes representing *k, p, s, v, z, dhl, hl, kl, ndhl* and *nh* of Kafir. As some of these are evidently not phonetic permutations, it must be a definitive, as in Mexican. The following Kafir words exemplify the compound consonants: *dhlwengula, hlala, hlwayela, mpomposa, mvumvuzela, mfameka, mka, mhlope, nkla-kaza, ntsila*. The dental, palatal and lateral clicks are only found in the southern languages adjacent to the Hottentot, and it may be inferred that they are of Hottentot origin. The contagious nature of peculiar sounds is well known. It would appear that even the European ear has not escaped the attraction of these extraordinary articulations, for Sir John Barrow says that many of the Boers partially affect similar motions of the tongue in speaking their own language.

The agglomerative and fluent phonology gives great facility in forming compounds, which are unitised by the accent and by euphonic accommodations. Thus in Kafir from *dhla*, "eat" and *ilifa* "inheritance," is formed, with the definitive prefix *in*, the compound *indhilifa*, "heir"; from *ma* "stand" and *kade* "long" is formed, with the def. pref. *isi*, the substantive *isimakade* "a thing of long standing." So *isimungunyigazi* "leech" from *mungunya* "to suck" and *igazi* "blood." Proper names are formed in the same way from any word or phrase, by prefixing the personal definitive *u*. Ex. U-modhla "(The) Wild Cat"; U-ndh-leleni, "In-the-path"; U-hlalapantsi "Sit-down"; U-nontsimbi, "Mother-of-beads"; U-souto "Father-of-a-thing."

In flexional traits Zimbian is much richer than the Egyptian and Hottentot, but inferior both to the Assyro-Berber and to some of the Mid-African languages. The absence of sex definitives or terminals is a peculiar defect, but it is probably not an original one. There are several definitive prefixes of the 3rd person, which must have had distinct meanings in an earlier stage

of the formation, and as one of these is the sibilant (*si, isi, izi* &c) and another the labial (*b, m, v* &c) which are respectively feminine and masculine in Hottentot on the one side, and in the northern and several of the middle African languages on the other, it is probable that they were originally the common Semitico-African sex definitives.* The extension of masculine and feminine particles to names of inanimate substances and of action &c, occurs in Hottentot, Egyptian, and the Semitico-Libyan languages generally, as well as in the Indo-Germanic formation. In collocation the Zimbrian languages are generally prepositional and direct, but their system of prefixed definitives renders them, in a great degree, independent of a regular arrangement of words, and considerable license is used. The possessive and qualitative follow the substantive to which they relate, as in Semitico-Libyan. The action formatives—causative, reciprocal &c—are mostly postfixed, as in Hottentot and in the Mid-African, Indo-European and Scythic languages, but some are prefixed as in Semitic, and in the compound formatives both prefixes and postfixes are used. Some forms have a flexional character like most of the Semitic, owing to many of the formatives or their contractions being simple vowels. Thus in Suaheli when the action is for another, the root postfixes *e* or *i*, as euphony requires, the generic assertive following. *Pata, patia; pigā pigia; letta, lettea*; the additional vowel in the 2nd and 3rd examples agreeing with the vowel of the monosyllabic roots (*pig, lett*.) The postfixed formatives are compounded, and so also are the assertive and tense prefixes. The final vowel is also in general formative, (as in substantives,) being in most of the languages *a* when the root is used assertively. With definitive, directive and other prefixes, it is sometimes changed. There are also some assertive postfixes containing a consonant, (*la, za* &c) and these render the assertive stems trisyllabic.

The ideologic basis of the formation is crude, flexion and concretion not having been carried so far as to produce true verb forms. The roots are crude and monosyllabic, and the definitives and other formatives used in giving specifically substantival, assertive and qualitative forms, have so much connection that the

* The Kafir *azi*, "female," appears to be the same root that is used as the feminine definitive in North and Mid-African languages.

formation cannot be considered as having risen above the substantial and participial level of Scythic. The tenses and other modifications of the so-called verbs are formed by definitive and directive particles similar to those which denote the modifications and relations of substantives, and many of them are glossariaily identical. Both in the verbal and nominal forms a combination of prefixes and postfixes is much used.

There is, at the same time, a considerable amount of real and *quasi* flexion. In the composite prefixes the elements are often euphonically and elliptically blended and transmuted, and many of the consonantal and vocalic prefixes and postfixes or terminals are converted into allied sounds to express variations in the form. The pronoun not only wants the sex forms of Hottentot but also the absolute and relative forms of the 1st person plural. The companionative idea, however, is found in Kafir and probably in some of the other Zimbian languages. The plural definitive of proper names *o*—may be used to denote not only several persons of the same name but “the attendants or people” of the person named, as in Malagasy, Philippine and Polynesian. The definitives being the same as the roots of the third personal pronoun, all nouns being formed or distinguished by them, and the 1st and 2nd persons as well as the 3rd being echoed by the prefix in connected words, the ideologic basis of the formation is mainly pronominal. The pronoun is also included objectively in the verb, (as in Assyro-Berber, Caucasian, Euskarian &c.), being placed between the agentive prefix and the root. The possessive and directive particles are prefixed to the root and euphonically combined with the definitive, which precedes them. Thus *l-a-inkosi* (the-of-chief) becomes *lenkosi* (*e=ai*). The regular directive or modifying prefixes—independent of the definitives which are always retained—are, in Kafir, the possessive of appellatives (*a*) and that of personal nouns (*ka*, also Hottentot and Galla), the appellative dative (*e* pref. and also *eni* postf. save in local names), the 2nd dative (*ku*), the locative-personal (*kma*—e. g. *kma-Pato*, “at, to or from Pato’s place”), the causal,* the instrumental (*nga*—), the conjunctive (*na*—),

* The causal is simply an intensive formed by reduplication of the prefixal definitive, that is, by prefixing it to itself in its reflective or euphonic form (e. g. *um-fasi*, *ng-umfasi*, *ilizwi*, *lilizwi*; *ubuso*, *bubuso*; *ukutya*, *kukutya*).

the vocative and 2 comparatives*. These are compounded in 13 additional forms. Thus the 1st dative, by prefixing the instrumental *nga*, expresses "about", "near" &c., and the compound by superadding the possessive, becomes equivalent to "round about." Ex. Ilizwe *langase*-Beka, "the country round about the Beka", *langase* being *l-a-nga-(s)-e*,—i. e. *l*, the reflected definitive of *ilizwe*, *a* the possessive, *nga* the instrumental (also denoting "at" "in"), *e* the dative (also denoting "at," "in," "on" &c.) preceded by the euphonic letter *s*. The form is thus resolved into an intensitive of the single notion of position, made relative or attributive by the possessive. The idea of "at" or "adjoining" is expanded by repetition into that of "around" or "adjacent on both or all sides", a method of enlarging and intensifying generic ideas by the doubling and compounding of particles that pervades the formative systems of all the Semitico-African, the allied Asonesian, the Scythic and the American languages, and which is carried to an extraordinary extent in Malagasy and its least abraded Indonesian derivatives. The action formatives are compounded in the same way, and on the same principles in all these languages, but with various limitations of the agglomerative power. In the Zimbian branch it is much greater than in Libyan and the Mid-African languages, although it falls short of the extent to which it can be carried in Malagasy. Mr Appleyard remarks that the power which the Kafir verb has "of modifying and ramifying the radical idea by means of its various tenses and forms of tenses, all of which are used negatively as well as affirmatively, is almost unlimited." But as the conjugation is entirely mechanical, consisting merely in an agglomeration of distinct roots and definitives, it is in reality simple. It is extremely elaborate, but presents no complexity like that occasioned by the more agglutinative and protean character of the American conjugations. It is even simpler than the Semitico-Berber. Its elements, and the variations in their combinations, are incomparably more numerous, but the mode of combining them is simpler and more regular, and they are less disguised. There are, for example, eight forms of the 3rd

* The 1st comparative is a reduplication of *nga*, which has various other applications. Its comparative use appears to be connected with one of its assertive meanings "semblance." The 2nd comparative is a compound of *nga* and *nje* which has a somewhat similar meaning.

person singular, but each of these is merely a reflexion of the prefix of the governing noan. The negative particle doubles the number. These with the 7 tenses and the augmented and compound forms, the 2 voices, active and passive, the 5 moods, the simple derivative forms (relative, causative, subjective, reciprocal and reflective) with their compounds and re-compounds, and their frequentative, intensitive, neuter, and other forms, will give many thousands of possible affirmations, even without taking into account the 1st and 2nd pronouns, the plurals of all the pronouns, and the transition forms. The elaboration and luxuriance of the South-African pronominal and verbal system are excessive. It is cumbrous and puerile rather than refined and discriminative. Nothing is left to the mind. Before the speaker ventures to take a single new step in the sentence, he advances the pronominal platform, on the unbroken continuity of which the whole is made to depend. At each successive word he, as it were, pauses to look backwards or forwards and remind himself and his hearer of the subject or object of the proposition. Each word, as it were, becomes a new affirmation*.

The grand distinction between the Zimbian and the Semitico-Libyan formations is the phonetic. The one is highly agglomerative and pronominally reflexive; the other is non-agglomerative,

* Thus instead of saying "the fierce black tiger prowls in the thick jungle and kills deer," Zimbian requires us to say "*the-tiger the-black the-fierce the-prowl in the-jungle the-thick and the-them-kill the-deer.*" From this example it will be seen how the repetitive prefix supersedes gender and supplies number and person. The following are Kafir sentences from Mr Appleyard's Grammar. *Umsindo womntu wokudumisa*, literally, "*the-wrath (of) the-man the-thee-shall-praise.*" *Usatani wamkohlisa u-Eva*, "*the-Satan the-her-deceived the-Eve.*" *U-Tixo uwenzile umhlaba*. "*The-God the-(he)-it-made the-earth.*" i. e. God made the earth. Here both the subject and object are pronominally and pleonastically amalgamated with the verb. *Umntu wenzelwa ukunazi, no-ku-mtanda, no-ku-mkonza u-Tixo*, "*the-man he-was-made to know-him, to-love-him to-serve-him the-God*" i. e. man was made to know, love and serve God.

I add a few Zulu sentences. *Izi-mvu z-a-mi, zi-ya-li-zua ili-zua l-a-mi*, literally "*They-sheep they-of-I they-do-it-hear it-voice it-of-I,*" i. e. "my sheep hear my voice." *Wena uyasi-bona tina*, "*You you-do-us-see us.*" *Um-fazi wake uyalima galo igeja* "*the-wife-the-(i. e. she)-of-he the-(i. e. she)-does-it-dig with-it the-pick.*" *Ilashi liyabutanda utyani*, "*the-horse the-(i. e. he)-does-it-love the-grass,*" i. e. "the horse loves grass." *Igame lake*, "*the-name the-of-him.*" *Abantu bake bonke abakoluwayo*, "*they-man they-of-the they-all they-faithful*" i. e. "all his faithful men." *Awadoda ake ayahamba*, "*they-man they-of-him they-do-walk.*" *Abafazi bake bayahamba*, "*they-woman they-of-him they-do-walk.*" *Izintombi zake ziyahamba*, "*they-daughters they-of-him they-do-walk.*" *Imihlambi yake iyahamba*, "*they-flock they-of-him they-do-walk.*" *Inkabi yake iyahamba*, "*the-ox the-of-him the-(or it)-does-walk.*" [The Zulu examples are taken from the Rev. Lewis Grout's paper on "The Zulu and other dialects of Southern Africa, Journ. Am. Or. Soc. I. 397.]

elliptic and flexional. Both have formatives of a similar character, but in the one they better maintain their independent position and powers of combination, while in the other they tend to sink into the root and form flexions. The two formations are so widely separated ethnologically that their point of convergence to a monocom basis must be placed very far back in time. The Zimbian formation is in many respects much more akin to Euskarian, Caucasian, American and even Indo-European than to Semitic or even to Semitico-Libyan. Its connection with Semitico-Libyan is mainly through the Egypto-Hottentot stage of that formation, for the superinduced characters which distinctively constitute Semitic are not Zimbian, nor are those which combine Hottentot, Egyptian and Assyro-Berber in a more archaic or proto-Semitic formation. At the same time Semitic has some traits in common with Zimbian which are not archaic Semitico-Libyan, such as the agglutinative tendency, prefixual pronouns of the aorist &c, and these traits appear to be connected with great ethnic movements in S. W. Asia, the linguistic effects of which were more felt by Semitic and Zimbian than by Egypto-Hottentot. The more important common traits of Zimbian and Semitico-Libyan are monosyllabic roots; an archaic tendency of the pronouns to an assertive and dissyllabic form; formatives of a similar character; a general crudeness and simplicity in ideology and structure; the pronominalising of roots; the combination of agentive and objective forms of the pronouns with roots; the reflexion of the definitive of the substantive in qualitives (e. g. the Arabic *al*); and some glossarial affinities in the pronouns. The distinctive characters of Zimbian both phonetic and ideologic are not Semitico-Libyan. Such are the harmonic, vocalic and highly agglomerative phonology; the variety of definitives used as the 3rd pronoun; the prominence of the animate and inanimate, and the absence of the masculine and feminine genders; the pleonastic repetition of definitives both agentively and objectively; and the postfixing of the formatives.

The ethnic relation of Zimbian to Semitic and its position both as an African and as an Aso-African formation, will be again considered in the concluding sub-section.

SUPPLEMENT.

A.

Definitive Prefixes and Postfixes.

To simplify the illustration of the system I shall confine myself to the Kosah. In Ama-kosah there are 6 forms of the substantival prefix which differ either in the singular or plural, and 2 which are indefinite in number. 1st *um* or *u*, (pl. *aba* or *o*) generally confined to personal nouns; 2nd *i-li*, or *i*, (pl. *ama*); 3rd *i-m*, *i-n* or *i* (pl. prefixed *iz*); 4th *i-si* (pl. *i-zi*); 5th *u-lu*, *u* (pl. as in 3, i. e. *iz-im*, *iz-in* or *iz-i*); 6th *um* (pl. *imi*) generally confined to neuter nouns, the plural only differing from the 1st; 7th, *u-bu* (pl. same as sing.), generally confined to abstract nouns; 8th *u-ku*, sometimes *u*, (pl. same as sing.), generally confined to indefinite and verbal nouns.

There is obviously considerable phonetic flexion in this system. The vowels appear to be the chief distinctive elements, and their formative functions as postfixes both of substantives and assertives, render it probable that in these definitives also they have formative powers. *U* (in some other languages *o*) and *i* are chiefly used. *U* occurs in the 1st, 5th and 6th classes in the singular, and in the 7th and 8th in which it is indefinite. *I* occurs in the singular of the 2nd, 3rd and 4th classes, and in the plural of the 3rd, 4th, 5th and 6th. The singular of the 1st and 6th, and the plurals of the 3rd and 5th are the same. The difference between the plural of the 1st, *aba*, and that of the 2nd, *ama*, is a mere phonetic flexion of the consonant, while the 7th, *ubu*, *bu*, only differs from them in the vowel, in this respect resembling the singular of the 1st (*um*, *nu* &c.) The singulars of the 2nd and 5th only differ in the vowel. The 4th, *isi*, *si*, takes the sonant form in the plural, *izi*, *zi*. The 3rd, *im*, is repeated in its own plural and in that of the 5th (with or without *iz* of the 4th prefixed), and it also forms the plural of the 6th. The explanation probably is that the formal distinctions made in the classification that has been adopted in grammars do not coincide with the radical ones. The common particles probably embrace classes of their own. Thus *si*, pl. *zi*, must have some living or obsolete power which it carries into the 4th class and into the plurals of the 3rd and 5th. It had probably feminine, plural, augmentive, intensive, causative

and other allied powers. The other radical particles appear to be *u* (with the variations *um*, *vu*, *v*; *ubu*, *bu*, *b*, and the flexional plural *o*, *aba*, *ba*, *b*; *ama*, *wa*, *a*,—*a* appearing to be plural); *i* (with the variations *im*, *in*, *imi*, *yi*, *y*); *l*, with two forms obtained by agglutination with the preceding formative vowels, *lu* (also *ulu*, *l*, *u*) and *li* (also *ili*, *l*, *i*), [but *l* itself, like *n*, *m* of *im*, *in*, may be merely euphonic]; and *k* with *u* (*uku*, *ku*, *k*).

The vocalic definitives *i* and *o* (= *u*) are also postfixed to the roots. The 1st prefix is accompanied by the postfix *i* (e. g. *teng-a* "to buy" *umtengi*, "a trader"); the 2nd, 3rd, 4th, 5th and 6th by *-o* (*w-a* "to fall", *iliwo* "a precipice"); (*alat-a* "to point", *imalato* "forefinger"; *dudum-a* "to thunder", *in-dudumo*, "thunder"; *pefuml-a* "to breathe", *umpefumlo* "soul"). Diminutives take *ana*, *az-ana*, *an-y-ana* (*az* being feminine) and comparatives *ra*, e. g. *inkosi* "chief", *inkosana*, "a little chief"; *inkosazana*, "a little chieftainness"; *ubukosi*, "chieftainship"; *ubukosira*, "authority like chieftainship". The feminine term *kazi* (root, *azi*) is also incrementive, in conformity with the archaic and widely prevalent association of fullness, plurality &c. with that gender, (e. g. *umsinga* "a current"; *umsingakazi*, "a flood"; *ilitye*, "a stone"; *ilityekazi*, "a rock").

It is obvious that the same formatives occur in the formation of substantives and assertives.

The possessive particle *ka* forms adverbs from qualitatives and numerals. The dative prefix *ku-* (the 8th species of noun formatives) forms distributives, infinitives, abstract nouns, and the imperfect of Kongo; it also enters into the future of Kosah. The instrumental *nga*—is also intensive. It is probably connected with the assertive auxiliary *nga*. The causative, intensive, pluralising, and feminine powers of *si*, *zi* are all derived from the same radical idea, and the reflexive (i. e. intensive) prefix with the sibilant prefix of substantives are probably the same definitive. *Na* is radically conjunctive and its reciprocal and "relative" function are connected with this. The substantival formatives in *l* probably preserve the same root. The use of the same particle in the singular of some noun formatives and in the plural of others, seems to shew that its power was originally intensive. *Pa-* forms prepositions and adverbs from nouns, (e. g. *izulu*, "heaven",

pezulu "above"; *zndhle* "field", *pandhle* "outside"). *She*, *tye* are substantival postfixes occasionally used (*kade* "long", *kadeshe* "for ever"; *ilanga* "sun" *ilangatye* "flame"). The Kafir preposition *ele*, "beyond", is probably connected with the perfect *ile*. The generic assertives *ma* and *ba* are probably variations of one original root, and identical with the labial definitive or agentive prefix. *Ma* has also the meaning "to stand", and allied with this is its locative power, in combination with the dative particle *ku* (*k-ma*.)

The following table from Appleyard contains the various forms of the common prefixed definitives:—

Species.	Singular Prefixes.	Euph. Letters.		Plural Prefixes.	Euph. Letters.	
		Before Vow-els.	Before Conso-nants.		Before Vow-els.	Before Conso-nants.
1	um, u	w	wu	aba, o	b	ba
2	ili, i	l	li	ama	a	wa
3	im, in, i	y	yi	{ izim, izin, izi } { im, in, i }	z	zi
4	isi	s	si	izi	z	zi
5	ulu, u	l	lu	{ izim, izin, izi } { im, in, i }	z	zi
6	um	w	wu	imi	y	yi
7	ubu	b	bu	[same as Sing.]		
8	uku	k		[Ib.]		

"It will be seen from this table, that the same form of euphonic letter, or letters, belongs to different prefixes, and also, that the same form of prefix is sometimes singular, and at other times plural. Care will be therefore required, lest the species, or numbers, be confounded together."—Appleyard's *Kafir Language* §98 (p. 112).

SUPPLEMENT.

B

Pronouns.

The Zimbian pronouns are,—

1st. (a) *mi*, *mimi*. or with a definitive postf. *mina*; (b) *gi*, *ghi*, *Kafir*; (c) *su*, *hu*, *tu*, *si*, *hi*, *ti*, *sui*, *sue* &c. pl.

2nd. (a) *we*, *wewe*, *wena*, *wa*, *wo*, *fu*, *u*, *o*, &c; (b) *ku*, *aku*, *u* oblique, poss. &c; (c) *mu*, *wa*, *nu*, *ni*, *mui*, *nui* &c. pl.

1st. *Mi* is not Semitico-Libyan but Georgian (*me*, *m*, *w*), Indo-European and Scythic. The Semitic *ni*, *na* &c. may however be ultimately identical with *mi*, *ma*, for in some annexed forms the Zimbian is also *ni*, *na*, &c. The prevalent Zimbian vowel *i* (*m-i*) is the same as the prevalent Semitic (*n-i*), and it appears by itself in some languages of both formations as the pronoun. It is also Caucasian (*si*, *di*). In some Mid-African languages broad forms are found, *mo*, *ma*, *mba*, similar to archaic Scythic and N. E. Asian forms.

The form in *t*, *s*, *h*, is Hottentot, Semitic, Indo-European, Scythic, American &c. The guttural *gi* is probably from *ngi*, a form of *ni*.

2nd. The labial is not Hottentot or Semitic (*sa ta*, &c). Neither has it affinities with Indo-European, Euskarian or Scythic. The only analogous forms in the western part of the Old World are Caucasian (Circassian *nu*, *uo*, *w*, *u*), corresponding with Yeniseian (*au*). The Iron and Georgian are different (Semitico-Libyan &c). *Ku* &c. is Dankali (*ku*), Galla, Hausa, Semitic, and Euskarian. In the pl. forms *w* may represent the *n* of the Sing., but those in *n* and *m* appear to be the Semitic plural def. *m*, *n*. In both persons the vowel termination *ui* is plural, 1st *s-ui*, 2nd *m-ui* or *n-ui*. Both *u* and *i* have plural functions in Semitic and Mid-African languages, and the Berber *ku-nwi*, 2nd pron. m. pl., contains the Zimbian form *nui* (comp. Semitic *nu*). The same mode of forming the plural occurs in the Mongol 2nd pronoun, S. *si*, P. *sue* (comp. Zimbian *tue*, Ang. ; *nue*, *nui* of the others, and the pl. of the 1st person *sue*, *sui*). If those of the oblique annexed and plural forms which are not merely flexions of the separate roots are more archaic than the latter, the Zimbian system would appear to have been superim-

posed on one of a Semitic and Hottentot character. 1st pron., the oblique *ni*, *i* are Semitic, and the plural *si*, *ti* are Hottentot. 2nd pron., the oblique *ku* differs totally from the separate *we* &c. and is Galla-Semitic. The plural *nui*, *ni*, *nu*, *u* &c. is Berber-Semitic, Scythic and Dravirian.

1st PRONOUN.

(Singular.)

mimi	Suahili, Kinika.
mi	Makua, Kafir, Mpongwe, Fanti.
-mi	<i>Obj.</i> Suah. Kin: <i>oblique</i> Kafir, Efik, Yebu.
mi-na	Kaf. Kin., Zulu.
me-no	Kongo.
mi-nu	Embonna
mo-n	Efik.
mo	Yebu.
mi-e	Mpongwe, Suah.
me	Kongo <i>poss.</i>
ame	Loango <i>poss.</i>
cha-mi	Angola <i>poss.</i>
ami	Efik.
emi	Yebu, Yoruba.
em	Susu
m	Mandingo
i	Loango.
ui	Kin. <i>obj.</i>
ni	Suah. [Semitic <i>ni</i>]
ndi, nd	Kaf., <i>pref. inf.</i>
a	Vei; Kongo <i>verb pref.</i>
n̄gi	Zulu, Kaf. (from <i>ni</i>) [Tumali <i>n̄gi</i>]
ki	Sech. <i>obj.</i> also <i>verb pref.</i>
gi	Zulu, <i>subj. obj.</i> (prob. from <i>n̄gi</i> .)
n̄ga	Bundo <i>verb.</i>
ūghi	” ”
ngu	” ”
ng	Vei
mba	Batangas.
ma	Grebo.
na	Sech. Grebo <i>poss.</i>

(Plural.)

A suisui	Suah., Kin.
sui-no	Kin.
e-sue	Angola
a-zuwe	Mpongwe.
a-zwe	Mpong.
we	Batang.
a-wa	Yebu.
a	Yebu, Grebo.
ti-na	Kaf.
-ti	Kaf. <i>obl.</i>
si, s	Kaf. <i>pref. inf.</i>
hi-o	Makua
-tu-	Suah. <i>obj.</i>
e-tu	Kongo.
tu	Loango; Bundo; Angola <i>verb pref.</i>
-pu-	Kin. <i>obj.</i>
si, sisi	Hot.
B ro, re	Sech. (Hot.)

2nd PRONOUN.

(Singular.)

A wewe	Suah.
uwe	Kin
awe	Mpong.
ave	Batangas.
afu	Efik.
fu	Efik <i>poss.</i>
uwa	Yebu. Sech. <i>verb pref.</i> in pres.
wa	Yebu.
wo	Yeb.; Fanti <i>poss.</i>
i-wa-r	Yoruba.
mah	Grebo.
we-na	Kaf. Sech.
-we	Suah., Kin., Kaf. <i>obl.</i>
we	Makua.
ngue	Kongo (=ng-we).
gu	Bundo <i>verbs.</i>
e-ie	Ang.

w	Kaf. <i>pref.</i>
u	Kaf., Sech., Kong., Loango.
o	Mpongwe, Sech.
l-u	Loango <i>poss.</i>
e	Susu.
i	Mandingo, Vei.
nġ	Kaf. <i>pref.</i>
ano	Fante.
nao, hi-a-nao, ao	Malagasy.
ne	Songa.
B ku	Suah., Kin., Kaf., Kong. <i>pref. inf. postf.</i> [<i>ka</i> Semitico-Lib.]
aku	Loango <i>poss.</i>
ko	Zulu <i>obl.</i>
k	Kosah <i>pref.</i>
ga-ya	Kong.
ga-ye	Emb.
C nina	Kaf. <i>poss.</i> (<i>Plural.</i>)
A nuinui	Suah., Kin.
muimui	Kin.
mui-no	Kin.
-nui	Suah. <i>obj.</i>
-mui	Kin. <i>obj.</i>
mu-	Ang. <i>pref.</i> (also 3rd pronoun).
ni-na	Kaf.
ni, n	Kaf. <i>pref.</i> (<i>poss. obl.</i>)
e-nu	Kongo.
nu	Bundo <i>verb.</i>
a-nue	Mpongwe.
e-nwe	Yebu.
eh-nyi	Yoruba.
nyo-we	Batangas.
ku-nwi	Berb.
m-fu	Ef. (e-fu S.)
-wa-	Suah. <i>obj.</i>
-a-	Kin. <i>obj.</i>
u-	Kaf. <i>pref.</i>

v-	Angola <i>pref.</i> (so in 3rd pron.)
mi-nio	Makua
B e-tue	Ang. (1st pron. e-sue, 3rd e-nu-e, i. e. the 2nd of the other languages.)
C l-o	Sech.
l-e	„ perf. pref.
l-e-a	„ pres. pref.

The pronouns and definitives are annexed to words of all kinds, —substantives, qualitives, assertives, adverbs, numerals, directives and other particles. Zimbian is thus as fully pronominal as any language can be, and presents types of every pronominal form, combination and flexion that is to be found in any other formation. In this respect it may be considered as the Old World representative of that archaic development which is still prevalent in America, but by its union of pronouns and generic assertives to mark tense it combines the Semitico-American with the more prevalent Scythico-Iranian systems. A few examples will show how its pleonasm and almost unlimited power of agglutination enrich it with the forms of the Indo-European, Caucasian and American formations. Onke signifies “all”, “every” &c. whence s-onke “we-all”; nonke “you-all”; wonke, lonke, yonke, zonke &c. “it-all”, “they-all”, according to the prefix of the substantive. With the numerals and this adjective, dual, trinal and any other numbers can be formed, onke being contracted to o. Tina s-o-ba-bini, “we both”; tina sobatatu, “we three”; tina sobane “we four”; imili y-o-mi-bini, “trees all-two”; izindhlu x-o-n-klanu “houses all-five”. Examples of transition forms in Suahili. Na-ku-penda-we “I-do-thee-love-thee”; n-a-m-penda-i “I-do-him-love-him”; w-a-tu-penda-sui, “Thou-doeest-us-love-us”; a-me-ni-penda “he-did-me-love.”

SUPPLEMENT.

C

Assertion (tense particles, formatives).

Tense* is generally indicated by assertives prefixed or postfixed. Some of these assertives are annexed to the pronoun or person as

* In Zimbian as in Semitic and most other formations, the idea of relative time is not the exclusive or even predominant one in the so-called “tense” distinctions. The state of the action, its connection with another action, its relation to the will of the actor &c., are also, and perhaps most frequently, indicated.

in Grebo, Yebu, Fulah and Egyptian, and the pronouns have acquired distinctive forms in some cases.

In Suabeli the present is simply indicated by the pronominal prefix; the imperfect postfixes *i* to the root, as in the perfect of the Southern groups; the perfect postfixes *me* to the pronominal pref.; the past indefinite postfixes *na* to the pron.; the future prefixes *ta* to the root. In Kongo the prefixes in the simpler tenses are:—

	S.	1st	2nd	3rd	P.	1st	2nd	3rd
Present		n'	u	a		tu	nu	a
Pret. cont.		ya	u-a	a		tu-a	nu-a	a
Fut. Imperf.		n	o	o		tu	nu	e

The infinitive and the future-imperfect prefix *ku* to the root (so in the Makua imperf.). The past tenses postfix *ri* to the present. The imperfect prefixes *v*. In Kafir the indicative has the following tense forms. The present takes simply the pronominal prefix, or interposes between it and the root, the generic assertive *ya* (radically “to go”). The aorist (indeterminate, generally past) changes the vowel of the pronominal prefix to *a* as in the Kongo pret. continuative. The imperfect is formed by the perfect (*be*, in Suah. *me*) of the generic assertive *ba* (“to be”), postfixed to the pronoun. The perfect is the present with its final vowel displaced by *e* or *ile*, [*-i* Suah., *-ri* Kong.] the generic assertive postfix *a* having in itself a present affirmative force. Some roots change their vowel to accord or harmonise with that of the postfix, as in Indo-European. The 1st future prefixes *ku* (the infinitive pref.) to the root, and takes the present pronoun with its postfixed assertive. An “augmented” or connective form is given by uniting the aorist prefixes, or the aorist tense of the generic assertive *ya* (radically “to go”), to the participles of different indicative tenses. The negative forms of the verb are generally distinguished by the root taking final *i* or *nga* (an affirmative assertive). The aorist prefixes *a* to the pronoun; and roots which end in *i* change it to *a* before final *nga*. In Zulu *a* of the past, as in the other southern languages, is agglutinated either with the auxiliary assertive or the pronoun, (*gi ba tanda* or *ga tanda* “I-was loving”). The future, *o*, is agglutinated with the pronoun (*go tanda*), but it may also be denoted by assertive

auxiliaries. In Kafir the subjunctive prefixes the assertive *ma* (radically, "to stand"). The infinitive prefix *ku* of Loango and Suaheli is simply dative in Kafir, the infinitive prefixing *u* to it (*uku*). The "Relative" formative is the postf. *e-la* in Kafir, *i-a* or *e-a* in Suaheli, *i-na* in Mpongwe [and Hausa, *ani* in Tumali]. The Causative is *i-sa* in Kafir, *sa* in Suaheli, and *i-za* in Mpongwe (*za*, *zi* in Galla, *s-* in Egyptian, *is-* in Berber, Amharic and Himyaritic; in Dankali *-isse* is active.) The Inchoative (to become) and Potential Passive is *e-ka* in Kafir. In Mpongwe *-ga* is Habitative. The reciprocal is *-a-na* in Kafir, *na* in Suaheli, *em-* Berber, *en-* Arabic &c. The reflexive is the prefix *zi-* in Kafir, *ji* in Suaheli. The passive is *u* in Kafir and Kongo, *o* in Suaheli and Sechuanan before the final assertive vowel *-a*.

These formatives are capable of being reduplicated and compounded, with euphonic accommodations. Thus the Kafir *ela*, *isa*, *eka* and *ana* form *le-la*, *is-ela*, *ek-ela*, *an-ela*; *is isa*, *elisa*, *ekisa*, *anisa*; *ekeka*, *elcka*, *iseka*, *aneka*; *anana*, *elana*, *isana*, *ekana*; and these compounds are variously recomposed. Simple reduplication forms frequentatives. In Suaheli *le* or *li* is frequentative.

From the various assertive forms, simple and compound, substantives may be formed as in Semitic, the assertive postfix (*a*), being generally replaced, as in Georgian, by a substantival one (*i*, *e*, *o*). When the assertive postfix is a full consonantal syllable it is also elided (e. g. *andhla-la* "to spread out," *isandhla* "a hand.") Examples of the powers of the formatives. *Zal-a* "to be full," *zal-i-sa*, "to make full, to fulfil," *zal-i-se-ka* "to become fulfilled," *zal-i-se-k-i-sa* "to cause to become fulfilled." *Fan-a* "to be like," *fan-e-la* "to be like or proper for," *fan-e-le-ka* "to be fit or suitable," *fan-e-le-hi-sa* "to make fit or suitable," *fan-i-sa* "to make like," *zi-fan-i-sa* "to make oneself like," *zi-fan-i-sa-na* "to make oneself like another." *Tet-a*, "to speak," *tet-e-le-la* "to advocate," *tet-i-si-sa* "to help to talk." *Buy-a* "to return," *buy-e-le-la* "to return the same day." The following are examples of the words that are formed in Zulu from *bon-a* ("see"), 1st Assertives:—*bon-i-sa*, "cause to see"; *bon-ela*, "see for"; *bon-elela*, "look and imitate"; *zibona*, "see oneself"; *zibonela*, "see for oneself"; *zibonelisa* "cause to see for oneself"; *bonana*, "see

one another"; *boneka*, "to be visible or liable to be seen"; *bonakala* "appear"; *bonakalisa* "cause to appear." 2nd *Substantives*:—*umboneli*, "a spectator"; *imbonisisi*, "an overseer"; *isibonelelo*, "an emblem"; *isibonekiso*, "a sign"; *isibonekala*, "a prospect."

SUPPLEMENT.

D.

Note on the Caucaso-Georgian affinities of Zimbian.

In the 4th section I have already noticed the African affinities of the Caucaso-Georgian languages. A few additional remarks may be here made on those of Georgian. In many respects it occupies an intermediate place between the Zimbian on the one side, and the Nubian, Semitic and Indo-European on the other. It has important traits in common with the Africo-Semitic formations which disconnect it from Indo-European and Scythic, while it has others which connect it with Indo-European and Zimbian, and separate it from Semitic and the early African. It has also some which are Scythic, Indo-European, Semitic and Egypto-Hottentot but not Zimbian or Nubian.

Georgian resembles Zimbian in its harmonic, agglomerative and agglutinative phonology—these characters, however, being less marked, and being combined, in a much stronger degree, with elliptic and consonantal tendencies;—in the use of several definitive prefixes and of formative prefixes; and postfixes in the combination of prefixes and postfixes; in vocalic agentive postfixes; in the prefixal agglutination of the pronoun with the so called verb, both agentively and objectively; and in the absence of gender. The Caucaso-Georgian concreted definitive prefixes and postfixes resemble the Zimbian phonetically, the chief distinction being that in the former they are frequently contracted to single consonants even before consonants.

The Georgian formative definitives *sa-* (with the postfixal vowels *i* or *o*); *me-* (with *e*); *i-*, *e-li*, *u-li* or *-u-ri*, *o-ba* or *-e-ba*, *-ia-ni*; the formative vowel postfixes; and the plurals *e-bi* and *ni*, also resemble the Zimbian definitives.

From the concretion of most of the definitives in Caucaso-Georgian and the obscuration of their distinctive powers even in Zimbian, a glossarial comparison cannot be made until the primary

functions have been established by a minute and laborious analysis of vocabularies. The Georgian postfix *ba* (with the vocalic definitives *o* or *-e* preceding it) and the Zimbian prefix *bu*, *bo*, *b* (sometimes with the vocalic final definitive *-o*) form abstracts. The Georgian prefix *me* (with the final vocalic def. *-e*) is generally personative, and it may be connected with the Zimbian personal *mo*, *u-mu* (with the final def. *-i*). The other generic formatives of Georgian are radically possessive. *Sa* (with proper names *si*) is the current possessive postfix (following the final vowel definitive of the root.) Directly postfixed to the root it is dative; and it is also the first element in the ablative. As a prefix (with the vocalic postfixes *-e* or *-o*) *sa* is the most common substantival formative, forming abstract, possessive and other derivatives. Zimbian has *se*, *si*, *isi* &c (with *-o* as the def. vowel postf.), but its primary force is not ascertained. It will probably prove to be feminine, plural, collective, augmentive, intensive, &c., and not possessive. The Georgian *li*, *ri*, *ni* is also radically possessive. As a postfix (with the def. vowels *-e*, *-i*, *-a*, *-u* preceding it, or rather postfixed to the root) it forms qualitives, and also possessory substantives. It may have an affinity with the Zimbian prefixes *li*, *le*, *i-li* and *lu*, *lo*, *u-lu*, (with the *-o* postf.)

In several respects Georgian is more Iranian and Scythic. The case formatives are postfixed, and in the plural are preceded by a plural particle. In Zimbian some of the plural particles are flexions of the singular. The directive precedes the definitive. In both formations the latter is directly annexed to the root. The Zimbian 1st dative combines a prefixal with a postfixal particle.

The Georgian like the Zimbian verb forms are in reality substantival. They are produced by prefixing and postfixing to the root different particles (radically definitive, directive or assertive). The formative postfixal vowels vary as with substantives, not only in the postfixes of different forms but in the prefixed or infixed pronouns. Some of the other prefixes and postfixes are also identical with substantive formatives.

Georgian prefixes its 1st pronoun and sometimes its 2nd, and postfixes the 3rd. The "transition" forms have considerable

resemblance. They disconnect Georgian from Scythico-Iranian and unite it with the Semitico-African and Euskaro-American systems. The Georgian forms resemble the American and Zimbrian more than the Euskarian or Semitic, but their closest affinity is with Nubian (Tumali). Thus the Georgian *chen madzlew* "thou *me*-givest", is *madzlews* "he *me*-gives-*he*", may be compared with the Zimbrian *na-ku-pendo-we* "I-do-*thee*-love-*thee*" (where the postfix is also objective), and with the Tumali *ngi nuui* "I *thee*-kill", which is identical in form.

The following are examples of variable Georgian verb forms:—

1. Root, *qmar* ("to love")

Indicative.

Present.

- | | | | |
|------|-----------------------|-------|-------------------------|
| S. 1 | <i>che-vi-qwar-eb</i> | P. 1. | <i>che-vi-quar-eb-i</i> |
| 2 | <i>che-qwar-eb</i> | 2. | <i>che-i-quar-eb-th</i> |
| 3 | <i>che-qwar-eb-s</i> | 3. | <i>che-i-quar-eb-en</i> |

1st Pluperfect.

- | | |
|------|---------------------------|
| S. 1 | <i>che-mi-qwar-eb-i-a</i> |
| 2 | <i>che-gi-qwar-eb-i-a</i> |
| 3 | <i>che-u-qwar-ab-i-a</i> |

2nd Pluperfect.

- | | |
|------|----------------------|
| S. 1 | <i>che-me-qwar-a</i> |
| 2 | <i>che-ge-qwar-a</i> |
| 3 | <i>che-e-qwar-a</i> |

2. Root, *tchuk* ("to make present")

Indicative.

Present

1 Plup.

- | | | |
|------|---------------------|-------------------------|
| S. 1 | <i>na-tchuk-eb</i> | <i>mi-tchuk-eb-i-es</i> |
| 2 | <i>a-tchuk-eb</i> | <i>gi-tchuk-eb-i-es</i> |
| 3 | <i>a-tchuk-eb-s</i> | <i>u-tchuk-eb-i-es</i> |

3. Root, *mts* ("to give")

- | | |
|------|---------------------|
| S. 1 | <i>me-g-ts-em</i> |
| 2 | <i>m-is-ts-em</i> |
| 3 | <i>m-is-ts-em-s</i> |

4. Root *tan* ("to bear")

Present

Past Perfect

- | | | |
|------|-------------------|----------------------|
| S. 1 | <i>mo-vi-tan</i> | <i>mo-mi-tan-i-a</i> |
| | <i>mo-i-tan</i> | <i>mo-gi-tan-i-a</i> |
| | <i>mo-i-tan-s</i> | <i>mo-u-tan-i-a</i> |

The verb absolute *ar* is used with some roots as an auxiliary. Its persons are, S. 1st *war*, 2d *khar*, 3d *ars*; P. 1st *war-th*, 2d *khar-th*, 3d *arian*.

mo ("come")	
<i>Present</i>	<i>Pret. past</i>
1 <i>mo-wal</i>	<i>mo-wol</i>
2 <i>mo-khual</i>	<i>mo-khuel</i>
3 <i>mo-wa</i>	<i>mo-wida</i>

The great irregularity and variety of the Georgian conjugation arises partly from its not having reached a purely flexional condition, and partly from its elliptic and agglutinative phonology. It has analogies with Circassian, Indo-European, Euskarian, Semitic and Nubian, as well as with Zimbian, but it also retains some Zimbian traits which are absent in the other formations.

The Zimbian is distinguished alike from Georgian, Iranian and all other Aso-European pleonastic formations by the greater extent to which it carries the reflection of the definitive of the governing word in the connected ones.

Even this character consists simply in a more luxuriant and pleonastic development of a habit common to Zimbian with Semitic, Nubian and Indo-European. In Semitic the definitives of sex, number and case are more or less reflected in qualitatives, while those of person are reflected in assertives. The same habit is found in Indo-European. Zimbian differs from these formations, 1st, in the greater number of its distinct non-concreted definitives, in which respect however it is allied to proto-Caucasian, proto-Scythic and Tibeto-Ultraindian; 2d, in the reflection of the objective as well as the agentive prefix in the assertive; 3rd, in the qualitative not taking the directive of the substantive; 4th, in sex not being distinguished in pronouns or qualitatives. The Semitic reflection of the prefixed subs. def. in the qualitative is Zimbian.

6. MID AFRICAN.*

Distinctive Characters:—A strong tendency to postpositional particles and inverse collocation.

General Characters:—The middle languages appear to present

* The Mid-African languages have not been united into one or more great families like the Zimbian and the Semitic. I am hence compelled to consider them more minutely than the other classes. Without this I could not enable my readers to form any opinion as to the succession of the Africo-Semitic formations.

several types which have been more or less blended. The principal, and perhaps the only distinctive point of agreement, the inverse collocation, must belong to one of the successive formations, that has been most widely diffused along the whole middle region from the Red Sea to the Atlantic, for it is common to the Afar-Galla group in the east, and the Mandingo group in the west. It is probable that several of the most prevalent glossarial peculiarities of the middle languages are also connected with this formation. The other characters rather tend to break up this linguistic band into several distinct groups, for, although most of them are widely diffused, they are very variously combined. The Semitico-Libyan and the Zimbian formations are both present. The latter, on the whole, is the most powerful. It manifests itself in the strong tendency to a vocalic and harmonic phonology; in the partial reflection of prefixes in several languages, from the Woloff and Fanti of the extreme west, to the Tumali of the Nilotic basin; in the general absence of sex flexions; and in numerous glossarial affinities, embracing non-Semitic pronouns, formatives and numerals. These characters are conjoined in different languages with others which are not Zimbian, at least in the present stage of that formation. In several of the Western groups there is a remarkable crudeness both in phonology and ideology, with a strong tendency to monosyllables as in Egyptian. This is even seen in the Haussa. The reason is that the roots frequently appear without the prefixes and postfixes with which they are clothed in Zimbian and in most of the less crude Semitico-Libyan

For convenience of description I shall apply the term Nigritia to all Mid Africa westward of the basin of the Nile; Sudan to the eastern division, comprising the central basin of Lake Tchad, and a portion of the eastern basin of the Niger occupied by tribes speaking languages with a Nilotic basis; and Nigeria to the western division, extending from the Atlantic to the Niger. The latter name must not be confounded with the Latin root contained in the term Nigritia. *Ger, gir* is a native word for "river," and in *ni-ger, ni-gir*, corruptly Niger, it takes the definitive prefix *ni-*. The necessity for an ethnic division similar to the above will presently appear. The known Sudanian or East Nigritian languages are the Bergru, Begharmi, Bornui, Haussa and Emghedesi, all having stronger Nilotic and Semitico-Libyan characters than those to the westward and southward of them. The Nigerian or West Nigritian languages embrace those of the west coast, from the Senegal (included) to the Gabun (excluded). Their Semitico-Libyan characters are less marked and their Zimbian affinities more decided. Some of them appear to be more Nubian even than some of the Sudanian languages.

All the known non-Semitic Middle languages to the eastward of the Sudanian, appear to be referable to two divisions, the West Nilotic or Nubian, and the East Nilotic or Galla. The inverse or Scythic collocation is common to both divisions. But the typical Nubian is distinguished from the Galla by its phonology, and its non-Scythic mode of combining the pronoun and verb.

languages. On the other hand, many roots, and particularly servile and annexed particles, appear to have been subjected to elision through the influence of an elliptic and agglutinative phonology. The Semitico-Libyan formation, in its archaic condition, is traceable in most of the languages in various degrees, but much more slightly in the West than in the Middle and Eastern regions. In the centre it appears to have a wide archaic extension, for the Haussa—which reaches the lower basin of the Niger—while highly vocalic, has special North African (Berber, Egyptian) and Semitic traits. The great Eastern group—the Galla-Afar—is Semitico-Libyan, and not Zimbian, in many important traits, particularly in its pronominal system. The Tumali, again, has a very remarkable Caucasian and proto-Semitic basis,—agglutinative and quasi-flexional.

Most of the Semitic features of these languages appear to be archaic, like those of the Hottentot and Malagasy, and not attributable to the influence of the historical diffusions of Semiticism. The Shemo-Hamitic formation presents itself in a more ancient form than in any of the present languages of the Asiatic branch, and one that connects it more directly with the archaic Caucasian development.

It is to be regretted that these middle languages are less known than the northern and southern, because the clue to the true succession of the African formations must be chiefly sought in them. The principal question raised by our present data is, whether they are purely intermediate between the earlier Semitico-Libyan formation and the Zimbian, or contain a distinct element. The strong postpositional and inversive tendency of some of the languages is in favour of the latter opinion, but the postpositional traits found in some very archaic vestiges of the Africo-Semitic mother formation, in Zimbian, in Semitic itself, in Berber, Egyptian and Hottentot, with the partially inversive character of Aramœan and Amharic, induce some hesitation in adopting it.*

* The postfixal position of the archaic and mostly obsolete Semitic directives and the generally postfixal position of the definitives are Scythico-Iranian traits. The postfixal (i. e. possessive) position of agentive pronouns—and hence of the personal flexions—is natural in formations like Semitico-Libyan having a generally direct collocation, and anomalous in an inversive one like Scythic, unless they are merely euphonic and reflexive. The prefixal position of the pronoun—as in Caucasian, Tumali and Yeniseian—would seem to be appropriate to an inversive formation like Scythic, in which the possessive is regularly preplaced.

As the Semitico-Libyan and the Zimbian formations are broadly distinguished by their phonologies, the Middle languages should disclose the line of meeting of the two systems, and furnish evidence as to their relative antiquity in this portion of Africa. The question is a complicated and difficult one, and not to be rashly decided without reference to all the ethnic evidence attainable. Here I shall merely say that the impression received from the physiognomies of the known Middle languages is, that an archaic Libyan or Semitico-Libyan formation was the normal one, and that it has been modified in various degrees, by the influence of the harmonic and agglomerative formation found more fully developed to the south of the central mountain range.

Another first impression of the same kind is, that the harmonic formation must have spread from some northern point on the east coast, partly to the westward along the middle region, but chiefly to the southward (the prior Madagascar languages coming within the range of its influence in a secondary degree,) and thence up the western coast, where it turned the extremity of the dividing mountain range and deeply affected the western languages up to the Desert. All the western or Nigerian languages of the middle region have strong Zimbian affinities. Not only is the phonology more Zimbian than Libyan, but the Zimbian pronouns and particles are found in all or most of the languages. At the eastern extremity of the dividing range the assimilative influence of the Zimbian formation appears to have been arrested at an ancient period by the intrusion of a new Caucaso-Semitic sub-formation into the upper Nilotic basin,—the great channel through which a fresh Asiatic element has been infused, era after era, into African ethnology, and from which, it is most probable, the southern *race* was itself originally derived.

The Afar-Galla and the Gonga languages show that the Zimbian formation was at one period present and influential in the upper Nilotic basin. Their basis is archaic Semitico-Libyan, but they have many Zimbian traits, and the Galla vocalic phonology and composite formative system would alone establish the ancient predominance of a Zimbian formation on the Upper Nile. The Nubian languages have also been affected by it, or derived some of their traits from a common source. The influence of Zimbian,

or its prototype, in the Nilotic basin appears to have been arrested or repelled at an ancient period by a Nilotic formation, or sub-formation, becoming expansive. The ethnology of the whole course of the Nile proves that non-Negro races have immemorially occupied it, modified the native tribes, moved to the northward and westward (and probably also to the southward,) and produced a series of formations and diffusive languages. To such successive movements and formations there can be no hesitation in ascribing some of the peculiar affinities which the Galla group has with the Hausa, and even with the more western groups, as well as the Zimbrian traits traceable from Galla westward. The inverse collocation common to Nubian with the Galla, Ethiopic and several western languages was also, in all probability, derived from an intrusive and predominant race. The effect of the subsequent entrance of the historical Shemo-Hamitic race must have been to arrest the influence of the formation that immediately preceded it, and give a proper Semitic formation to Abyssinia. If these views are correct the ethnology of all Africa is but an expansion of the Nilotic, and the Nile still preserves remains of every great formation that has taken root in it and spread to the westward or southward over other African provinces. The Egyptian is the oldest, and the Abyssinian Semitic or Hamitic the newest, of these formations. Hence the Egyptian element is found in all the African languages, including the Malagasy; the Zimbrian in most of the Middle, as well as the Southern, including the Malagasy; and the Nubian in most of the Middle; while the proper Shemo-Hamitic has hitherto made little progress, although its influence appears to have begun more than six thousand years ago.

It is clear, I think, that the basis of most of the Eastern and Middle languages of the band is strongly Semitico-Libyan, and this after allowing for the influence of Himyaritic, Arabic and other possible Shemo-Hamitic influences of the historical era,—considering this era as extending back to the earliest glimpse of the Egyptian and Semitic peoples and languages as distinct. In most of the known Mid-African languages there is also, as I have said, a powerful tendency in the same direction as the Zimbrian, and some of them are more Zimbrian than Semitico-Libyan. There is no room here to show the comparative strength of the two ten-

dencies in the best known languages of this region, because the affinities that exist between the Semitico-Libyan and the Zimbrian formations themselves, render an elaborate analysis of each of the Middle languages necessary for this purpose. But I shall dip into the series here and there, and endeavour to note some traits, more or less characteristic, in a few of the languages in different quarters.

A. THE NIGERIAN OR WEST NIGRITIAN LANGUAGES.*

I begin with the great and partially outlying Western province, embracing the basins of the Niger and Senegal and the included or overlapped basins between them. This province has the Atlantic on the west and south, and the Desert on the north. On the east, Hausa, entering into it, connects it with the central province, the basin of lake Tchad. The conterminous languages are that of the Berber,—with which the points of contact are few, the race being very thinly scattered over the southern Sahara—the Sudanian (Emghedesi, Hausa &c.), and the Zimbrian. Whether a distinct formation is interposed between the two last, and approaches the Niger by the basin of the Tshadda, remains to be ascertained. The province is greatly broken by a lofty mountain chain and the adjacent highlands. Hence it has low, small, and, in some places comparatively sequestered, marginal basins, extensive table lands and great valleys. This diversity of surface is attended by its usual influence on the distribution and numbers of uncivilised or semi-civilised races. There are, on the narrow coast districts especially, but probably also amongst the mountains, numerous petty and barbarous tribes, generally of the most decided Negro type, and there are, on the table lands and larger plains and valleys, a few considerable nations comparatively civilised, and approximating in their physical type to the Nubians and Berbers. These civilised races appear to have long been, as they still are, expand-

* NIGERIA. "*Mithridates*," vol. III. General notices and very short vocabularies of several languages; grammatic notices of Susu (p. 173), Fante, (p. 180), Akra (p. 196), Bullom (iv. p. 438); J. L. Wilson, Comparative vocabularies of Mandingo, Grebo, Awekwom, Fanti, Efik, Yebu, (Bantanga, Panwe), with grammatical notes by Committee of Publication from different sources (Macbriar for Mandingo, Brunton for Susu, Wilson for Grebo and Fante), *Journal American Or. Soc.* Vol. I. 337; D'Arvezac, Gram. notices of Yebu, *Memoires de la Soc. Ethnologique* Vol. II. 106; Ib. Comp. Voc. of Woloff, Mandingo, Fulah, Serakoli, Sereres, Bagnon and Felup; T. Edward Bowdich, Notices of the Grammar of Fanti and Akra, *Mission to Ashantee*, p. 344.

ing territorially. In many places they extend to the sea board, insulating or overlapping remnants of the more barbarous Negro tribes. One of the earliest of these probably intrusive peoples are the Woloffs, in the extreme N. W. of the province between the Senegal and the Gambia, unless the Sereres—whom they enclose at Cape Verde—and the Felups, Bissagos and Jolos, are fragments of preceding migrations of a similar race. The next, and probably a later, dominant and advancing people of a similar type, are the Mandingo nations, who are not only widely spread over the interior, but have extended to the coast, separating the Papels, Balantes &c. from the Kru and other tribes of the Negro type. A later and still more widely diffused dominant people of a similar race are the Fulahs, who are now found at the extremities of the province, in Hausa and Sierra Leone, or from the basin of Tchad to the Atlantic, while on the north they occupy Timbuktu, and are spread westward down the Senegal as far as Podor, and to the south-eastward down the Niger as far as Borghu. The mode in which the Fulahs are now dispersed as a dominant and increasing, but not united, people, over a very wide territory, and amongst other tribes speaking various languages, appears to present all the requisite conditions for the ultimate prevalence of one linguistic formation, combined with a considerable difference in dialects and even in languages. Their rapid dispersion has a considerable resemblance to that of the Lau race in Ultraintindia. Similar diffusions and disruptions of dominant nations in more remote eras are perfectly adequate to explain all the phenomena of intermixed races and linguistic formations presented by the Niger province.

The languages of this province, so far as they are known, display archaic Libyan, special Nilotic (i. e. Nubian, native Abyssinian &c.), and Zimbian affinities. Some are very crude and monosyllabic as in the early form of Libyan, while sharing in the characters appertaining to the more advanced African formations. The pronouns are Zimbian; and the Mandingo, Fulah and most of the other languages have the vocalic, harmonic and agglomerative phonology of that formation. The reflection of definitives has also been found in Woloff and Fulah, and it probably exists in some of the other less known languages. At the same time the

structure is, in general, more postpositional and Nilotic than that of Zimbian. In some of the languages the union between the pronoun and roots used assertively is absent or not close, but in general it is as intimate as in Libyan and Zimbian. Definitives are used as absolute and specific assertives indicative of tense, the pronouns being agglutinated with them in several languages, either postfixally [e. g. Fulah, Grebo], according to the archaic Libyan collocation, or prefixally [e. g. Yebu], as in Zimbian and Nubian and in the aorist of Semitic. In the Mandingo family and in Yoruba the pronouns do not unite with roots used assertively.

At present our data are chiefly glossarial, but as the monosyllabic roots appear in the vocabularies combined with definitives some light is thereby thrown on the structure. The definitives are partly Libyan and partly Zimbian.* They are both prefixal and postfixal. The most common are the dental and guttural, *ha, ga, ah*; *te, de, &c*; the liquid, *lo, ro, no, ñgo &c*; and the labial, *ma, ba &c*. In most languages they are vocalised as in Zimbian. In some the consonant only is used, when the definitives are postfixed. Besides these full forms, definitives also appear as single vowels, varying in different languages, and sometimes in the same language. The same contracted forms appear in the 3rd personal pronoun in several of the languages. The proper pronouns themselves also undergo contractions to single vowels.

Prefixal *ma, am, m &c* occurs in Woloff and Mandingo (also *ba-*) as in Bishari, Malagasy and Zimbian [in Batangas *vi-*]. Postfixal *ma, ba, mo, bo, po, fu &c*—the archaic Libyan or Egypto-Hottentot masc. postf.—occurs in Woloff (cons.), Mandingo, Fanti, (*ma, ba*), Avekwom (*be*), Efik (*ma, m, p*), as in Bornui, the E. Nilotic Shangalla, Danakil, Agau and Gonga (so in Panwe and Mpongwe *-vi*).

Prefixal *ha-* is qualitative in Felup and definitive in Efik (*ah, uk, ok, ik*) as in Malagasy. Final *ha, ga, go, ta, &c*. occur in Woloff (*h, t*), Fulah and Efik, as in the Libyan and Semitic (*t*) languages. *De* is a prefixed definitive,—qualitative, active—in

* But some definitives, it must be borne in mind, are common to Zimbian and Semitico-Libyan.

Woloff. It is *ta* in Serakoli. *De* is a postfix in Fulah and Grebu.

Prefixual *na*, *ni* &c.—definitive, attributive—is found in Felup, as in Malagasy and the archaic Semitico-Libyan pronouns. Final *lo*, *ro*, *no*, (*l*, *r*, *n*) occurs in Woloff (cons.), Mandingo (*lo*, *ro*, *no*, *ngo*), Fulah (*ro*, *ri*, *re*, *do*, *du*, *de*, *no*, *ul* &c.), Grebu (*di*, *ri*, *de*), Fanti (*zu*, *ri*, *ji*), Efik (*na*, *n*, *ng*). [So Mandara *la*, *ra*, *le*, *re*,—Mpongwe *ni*, *li*, *ri*, *ve*, *di*, *de*]. It is probably the Semitico-Lybian plural and collective *n*, *d*, *r* &c.

Ha, *hu*, *sa*, *su*—substantival and assertive—is a prefix in Felup Bagnon and Mandingo as in Malagasy. It is an archaic Semitico-Libyan definitive.

E occurs as a prefix in Awekwom (common), Fanti, Efik (com.) Yebu, Yoruba, Bantanga, Panwe, Mpongwe.

I is a prefix in Fanti, Efik, Yebu, Batange, Mpongwe.

O is a prefix in Yebu (com.), Efik, Panwe and Mpongwe; and a postfix in Woloff, Mandingo and Fanti—

The prefixes and postfixes in *t*, *k*, and *n* are common to Nigerian languages with Berber, Sudanian, Nilotic, Egyptian, Semitic, Hottentot and Malagasy. The labials (*m*, *b* &c.) are Sudanian, Zimbian, Malagasy and Semitico-Libyan (Egypto-Hottentot masc. def., Semitic concreted def.)

Most of the languages have more than one definitive prefix or postfix, and some are nearly as rich as Zimbian. In Woloff we find *r*, *l*, *n*; *m*, *b*, *p*, *f*; and *h*, *t*, as final definitives; and *n*; *ma*, *am*, *m*; *qui*; and *de*, as prefixal definitives.

The combination of prefixes with postfixes is not exclusively Zimbian. It is an archaic Semitico-Libyan trait (*ante* p. 262, p. 229 note). Berber both prefixes and postfixes *ti*, *t* &c. to the same word, or combines a *t* pref. with an *n*—or a compound *n* and *t*, (*-ni-t*)—postfix. *Ta*, *ti*, *te*, is sometimes contracted to *a*, *i*, *e*, and the *t* occasionally becomes *s*, or *st*. Malagasy, although generally prefixal, also combines prefixes with postfixes. The archaic Semitico-Libyan pronominal system, and the Semitic aorist, show that it is not exclusively limited to any single formation, but was a common tendency of the primary Semitico-African development. The analogous proto-Scythic, American and Tibeto-Burman habit gives it a still more antique character, and

a prevalence probably universal in the earlier eras of agglutinative phonologies*.

Woloff has an unusual number and variety of consonantal finals, the liquids *r, l, n*, predominating. They appear to be in general postformatives. *M, b, p, f*, are common; *h, t*, also occur. The combinations of consonants are generally liquid, and similar to what are found in all African languages imbued with the Zimbabwian phonology,—e. g. *mp, mb, dr, tr, gr, nk, nt*. In its remarkable consonantal character it approximates to the Efik (Calabar) more than to the adjacent languages. Formative prefixes and postfixes—substantival and attributival—are common. The most frequent prefix is *gui* (probably the Kongo and Makua *kwi*). It is generally, but not always, active. It occurs also in Sereres, Bagnon and Fulah, but less frequently, and appears to be merely a modification of the universal *ga, gu, ka, ku* &c. *De* occurs, but less frequently, as an attributive prefix. In Fulah and Mandingo it is postfixed. *Ma, m, n*, are substantival prefixes. Many of the roots are monosyllabic, and when the formative particles are detached the proportion of monosyllables is greatly increased. Double prefixes occur, e. g. *gui-am-bur*, “free” the root being *bur* (in Mandingo *foro*). The same combination occurs in Fulah *gui-am-dole*, “strong;” (*am-dole* Woloff, root *dole*, “force”).

Amongst its other formatives are the postfixes *ai* and *ite* which denote the action or its result. The latter is the active *de* of Fulah. *Kot*, a postfix which denotes the actor, appears to combine this with a substantival def. *ka*, and in the reciprocal *-ante* it is apparently combined with *an*, a common Semitico-African reciprocal particle. There are ten postfixal formatives of action, and amongst them *u* reflexive, *lo* causative (? the plural particle), *u* negative, and *e* intensive. The position of these formatives proves that the general form of the language is Nilotic and Zimbabwian and not Semitico-Libyan. It possesses the reflection of prefixes to a certain extent, (Zimbabwian, Fulah, Tumali), and it is worthy of

* In the list of Guanches (Canaries) words given by Prichard, (Researches ii, 36), the Libyan prefixes and postfixes are common. “Water”, *aenum, ahemon*, (Berb. *anani, amen*, Nubian *ananga*. “Heaven”, *tigot*, pl. *tigotan* (Beb. *ib, Tibbo tugu* “Sun”, Eusk. *egusquia* “Sun”, Hurrur *goeta*, “God”). “God”, *acorani* (Berb *m'kurn*). “Sheep”, *tihaxan* (Berb *thikhsi*, Copt. *esoon*). “Milk”, *ache-men* (Berb. *acho*, Amh. *watote*, Zimbabwian *mashi, mazwa, masa* &c.)

remark that the *postfixual* definitive changes its initial consonant with that of the substantive. It has peculiar Berber affinities, and its consonantal tendency is probably a Berber or ancient Libyan element. It appears to be agglomerative. It does not flexionally distinguish masc. from fem.; nor, it is said, animate from inanimate, or singular from plural; nor does it unite the pronoun agentively or objectively with assertives; or distinguish the tenses flexionally. It appears to resemble the adjacent Mandingo in its general crudeness of structure*.

Whether the Sereres (Cape Verde), which is overlapped by the Woloff, has the same structure, and whether the languages of the Felups, who are of the Mandingo physical type, the Papels and Balantes, who appear to be of the Negro type, the handsome

* To exemplify the glossarial affinities of this outlying province and throw some light on the course of the intrusive races and formations that have moulded the Nigerian languages to their present forms, I shall take a class of words that generally accompany intrusive and predominant races, and indicate the courses of their diffusion,—the numerals.

To understand the ethnic bearing of the affinities of the numerals, or of any other classes of words, in a particular language of a large province, the distribution of the numeral systems and terms over the whole province must be considered. At the close of this subsection I have given a general comparative list of all the Nigerian numeral terms, from 1 to 5, that are contained in the vocabularies accessible to me, tracing them to other provinces in order to render this view of the distribution of the Nigerian terms more complete. The Africo-Semitic terms that have not found their way into Nigeria are also added. Referring to this general view, I shall here very briefly indicate the affinities of the Woloff numerals,—the other Nigerian languages in which the same root is found being placed within parenthesis, and the extra-Nigerian affinities being mentioned in the order of their closeness or directness.

1. *ben* (Serakoli, Timani, Bulum, Fetu).—Berber.—Nubian,—E. Nilotic, obsolete in, but preserved in 6, as in some Mandingo dialects),—European branch of Indo-European,—Semitico-Egyptian,—and Euskarian.

2. *ni-ar* (a common Nigerian element, but the more prevalent combination is Zimbian; the Woloff may also be from Kongo through Tembu no-*ali*, but it may also be directly W. Nilotic).—W. Nilotic, E. Nilotic, Semitico-African, Indo-European.

3. *ni-at* (common, Kru to Ibo);—Begharmi,—E. Nilotic (Shiho), Semitico-African, Zimbian.

4. *ni-ane* (Nigerian, almost universally). Zimbian.

5. *diu-rom*. The 1st element is Fulah (*jiu*). It has no other Nigerian representative and its source is the Egyptian *tiu*. The 2nd element is common,—Nigerian, Zimbian, Galla, Shangala, Berber, Semitic.

6 to 9. The next four higher numbers are 5, 1; 5, 2; 5, 3; 5, 4.

10. *fuk* (Mendi, Susu, Timmani, Kru). It is a common term for 1, Timbuktu *a-fok* &c. The Timmani *fut* has the same affinities as *fuk*, *wut* &c., The Mandingo *fu*, Papa *a-wo*, Karapa *o-wu* (10) present the bare root for 1, as in Timbuktu, *a-wo-i*, *a-wo*.

The Woloff system appears to be mainly Lower Nigerian and Zimbian, but with remnants of an archaic North African system (Egypto-Berber). The prefixual *ni-*, common to numerals and substantives, appears to be Ashanti (*mi-mi-e*, *e-bi*,-) and Lower Nigerian (Yoruba *n-*). In the East Nigerian (Calabar &c.), *i*, *e*, is common as a prefix without *m*, *n*.

Bissagas, the Jolos or Biafares, the Basares, the Nalaubes, and the petty tribes between the Nunez and the Sierra Leone, have any marked structural peculiarities, is not known. The Sereres appears, from the vocabularies published by the Société Ethnologique (ii, 205), to be more agglomerative and vocalic than the Woloff. Almost every word has one or more formative particles attached to it. The Felup, Bagnon and Serakoli have a similar and still more Zimbian or agglomerative character. In this respect they appear to approximate to the Fulah rather than to the Mandingo or the Woloff. In Felup *na, ni* &c. is a common prefix, generally active. *Ha, hu* &c., sometimes *sa, su* &c., is generally substantival, but sometimes active. It occurs in Bagnon, and also, though less frequently, in Mandingo. *Ka* occurs in Felup as a qualitative prefix. In Serakoli it has the same force, but changes its form to *t*.

The next group, that of the Bulloms, Susus, Timanis, Vei &c., belongs to the Mandingo family, physically and linguistically. The language is postpositional and inversive, the object preceding the action, the possessive the subject of possession, and the substantive its directive. But the qualitative follows the substantive, according to the general Semitico-African law. The Mandingo final of substantives, *o, lo, ro, no, ngo*, is Zimbian. It is found in Woloff, Fanti &c. The plural takes *-lu*, or *-nu*. Mandingo has also the prefixual *ma, ba*, of Woloff, (Zimbian, Malagasy, Galla &c.) The phonology is harmonic and vocalic like the Zimbian, and sex definitives or flexions are unknown, as in that formation. In the want both of the reflected definitives of Zimbian and of the Semitic concord in case, number and gender—of the substantive and qualitative, the structure is more crude than in either of these classes, and a regular collocation is consequently of more importance and more rigidly followed. Other evidences of crudeness are found in the prevalence of monosyllables, the comparative weakness of the agglomerative and agglutinative tendencies, and the want of any union between the pronoun and the verb. Time assertives are used. The particles shew archaic affinities with those of other Africo-Semitic languages. Thus the agentive postplaced definitive of Vei, *wa*, is found in Haussa and Berber (demonstratives &c.) and is evidently the labial definitive of Woloff, Mandingo, Fanti, Egyptian, Semitic, Hottentot, Zimbian &c. The pronouns

are Zimbian; e. g. Susu, 1st, *em*, *em-tang*, Sing., *mu-ku*, *mu-ku-tang* Pl.; 2nd, *e*, *e-tang* S., *wo*, *wo-tang* Pl.; Mandingo, 1st *m*, 2nd *i*; Vei, 1st *ng* S., *mo-wa*, *mu-wa* Pl.; 2nd, *i* S., *u* Pl., 3rd a S., *a-nu* Pl. *D*, *l* and *r* are much interchanged. *Ra* is objective in Susu; *la*, *da*, possessive, *la* dative, and *la*, *da* past in Vei; *-be* is dative in Susu, assertive and *future* in Vei and Mandingo. The Vei *-me*, apparently objective, is probably the same particle. *Be* is the perfect of the assertive absolute, *ba*, of Zimbian [the Mandingo def. *na*], and as such forms the future.

This Western group appears to be ideologically as crude as Egyptian and Hottentot, but its harmonic, agglutinative and vocalic character allies it to the Zimbian formation, and its decided inversive tendencies to Nilotic. Its crudeness and baldness are so great that they cannot be wholly attributed to degeneration from a more developed type similar to the Zimbian or Berber. On the north the Berber and Euskarian formations are highly flexional. On the south the Zimbian exhibits a development more complex than the Berber but of a different kind. The only alternative left is to recognize in the Mandingo group, as in the adjacent western languages, the presence of an Africo-Semitic mother formation in a very archaic and crude condition, and to attribute the vocalicism and inversion to the influence of later formations that have predominated in Middle Africa.*

* Sentences from the *Pater noster* in Mandingo.

<i>Nto-lu</i>	<i>fa</i>	<i>mein-be</i>	[for men-be]	<i>aryena-to</i>	<i>fo</i>	<i>y-s</i>	<i>i-to</i>	[ite-to]
1-(pl.)=we	father	who-is		heaven-in	that they-will		thou-name	
<i>miselmeya-ndi</i>	<i>Fo</i>	<i>i-la</i>	<i>manso-ro</i>	[mansa, "king," -ro	def. postf.]	<i>si-na</i>		
holy-make.	That	thou-of	kingdom			<i>will-come</i>		
<i>Domo-fingo-lu</i>		<i>di</i>	<i>nto-lu-la</i>		<i>bi</i>	<i>lungo-la</i>		
Eat-thing-(pl.)	give		1-(pl.)-to		to-day	<i>day-of</i>		

(i. e. daily) Journ. Amer. Or. Soc. i, 362 (from Macbriar's grammar).

The Mandingo numerals, like the language generally, are Zimbo-Nilotic.

1. *A.ki-ling*, *ke-ling* *ke-ring*, *ku-le*, which has no close Nigerian affinities.

B. *e-ta*, *i-ta*, *ta*.

C. *donda*.

A. and B. are connected through Lower Nigerian, Sudanian, and Nilotic. B is Kru, Whidah, Kerapay, &c.; Tumali; Gonga; Semitico-Libyan; and in the fuller form which it preserves in 6, it is Bongo, Kaylee, Egyptian, Euskarian and Semitic. A is Tembu, Karaba; Kallahi, Begharni and Bishari. C is Tibbo and Himyaritico-Abyssinian.

2. *fire*, *fela*, *fi'a*, *fula* &c. Zimbian.

3. *sak-wa*, *sak-a*, *sa-bi*; Serakoli *sik-wa*; Agau; Himyaritic (Gara); E. Nilotic; Zimbian..

4. *nani* &c.; Zimbian [see Woloff, *supra*].

5. *lulu*, *dulu*, *solu*, *suli*, *natu*, *ngnenu* &c. Lower Nigerian, Zimbian; Galla; Semitico-Berber.

The principal course by which the Zimbian element has been conveyed to the Mandingo languages is clearly traceable by glossarial comparisons. Mandingo has affinities with the Coast languages of the gulf of Guinea, and particularly with the Calabar dialects. The next step to the southward connects it with the Mpongwe-Kongo or West Zimbian groups. With the vocabularies of these groups, it has many special affinities, showing that it is chiefly through them that the Zimbian formation has been extended to the north westward. But a portion of these affinities appears to be due to the southern spread of the Mandingo race, or to a greater extension of a Nigerian language in this direction before the northern advance of the Zimbian. Many of the strong Calabar affinities must be attributed to this cause.

Where the Mpongwe or Kongo vocabularies depart from those of the southern and eastern languages of the same alliance and agree with Mandingo, the source of the agreement must be sought in a local and influential western formation, Nigerian or Guinea.

As the latest centre of the Fulah migrations appears to have been a portion of the highlands traversed by the head waters of the Rio Grande, Senegal and Niger, the race has probably been immemorially contiguous to that of the Mandingoes.

Fulah is much more flexional and agglutinative than the Mandingo languages, and in this respect leans more to the Nubian type, on the one side, and the Zimbian, on the other. It is vocalic, and has to some extent, the Zimbian reflexion of prefixes, as in Woloff and Nubian. The particles denoting time and mood are prefixed to the pronoun, save that of the past, which is post-fixed to the root. The final vowel of the root also undergoes changes, as in Zimbian. One of the auxiliaries changes its

6 is 1 (i. e. *one* more than 5, but in the archaic quinary scale 5 being *one* complete tale, was sometimes represented by a term for 1, as 10 frequently is in the superimposed denary system). The terms for one that occur in the Mandingo 6 are, A. *woro*, *wora*, of which the Woloff 1 is a variety. The Man lingo form is closer to the Lower Nigerian *war-ni*, *wor-ni*, *nor-i* (so in Mpongwe *mar-i*), Nubian *war-um* &c., and to the same element in the Agau 6, *wal-ta*, *wol-ta*. In the Mpongwe 6 it is inverted, but in 7, *o-ra* genu, it retains the Nilotic collocation.. The other term for 1 is, B. *weta*, *aitah*, see 1, radically identical with *wora*.

7 prefixes *wora*, or (as in Mpongwe) to the term for 2. Susu and Kissi substitute the current term for 5, of Zimbian origin, for the Nilotic.

8 is 5, 3 in some dialects. In others it is *seti*, *sagi*, Lower Nigerian, Nubian, Agau, Galla, which is also radically 5, 3, the current term being a flexion of 3, found also in 6 (3 dual) and 9 (3 trinal).

9 is 5, 4, in some dialects, and 1, 10, in others.

10 has two terms common in Nigerian, Sudanian and E. Nilotic, and both being radically 1, as in 5.

initials from *f* in the singular, to *p* in the plural. It has postfixed definitives which undergo euphonic changes, *go, ga, ku, ro, ri, re, de, do, du, cho, no, ul, nal, wul, &c.* These are generally replaced in the plural by *i* (Susu, Woloff, Akra, Zimbian, Berber, Semitico-Libyan, &c.) but the plurals have sometimes an irregular agglutinative or euphonic flexional character, as in Haussa, Tumali, Emghadesi, Galla, Berber and Arabic. In Fulah the flexion is, in general, more clearly traceable to the singular. Thus muso-*ro*, muso-*di*; na-*ga* na-*i*; dawa-*no*, dawa-*ri*. Here the *ri, i, di* correspond with the Zimbian *li, i* &c. More flexional and irregular are s-odo, uro (elision of initial def. of singular); debo, e-rob-*ai*; yete-*ri*, giti (as highly flexional as Caucasian), son-do, chiu-*li* (? chin-*li*); handi, nyandi. In the last instance *ny-* is the S. African *ni-*. The pronouns *mi* "I," *an* "thou," are Zimbian, like the Yoruba, Yebu &c. *An* (pl. *honon*) corresponds with the Fanti *ano*, Malagasy *nao*, Songa *ne*, Kaf. *ng-*. In Zimbian it is generally plural. On the whole the language appears to be of the Zimbian family, overlaid by Nilotic, or *vice versa*.*

We may now return to the Guinea Coast, and proceed eastward from the quarter where the Mandingo languages have intruded. The adjacent tribes are purely Negro, the best known being the Kru or Grebo, whose country lies to the south of that of the Vei and other Mandingo tribes. In Grebo, as in Fulah, the pronouns (Zimbian) are postfixually agglutinated with the auxiliary assertives of the imperative and conditional, producing vocalic flexions. Ex. Imperative, S. 1 *be*, 2 *beh*, 3 *ba*, P. 1 *bă*, 2 *băh*, 3 *bok*. Grebo is somewhat more consonantal than the western languages, consonants that are separated by a vowel in them sometimes coalescing. The labials *hm, hu, hw, mw, kb* and the liquids *kr, pl, pr, bl, ml*, and *sn* occur. The finals are vocalic, with the exception of *nh*, a form of the postfixual *n*. It has fewer annexed particles, and has consequently more monosyllables or

* The Fulah numerals are Zimbo-Nilotic, with some Egypto-Berber affinities.

1. *go* (Kru, Fanti, Yoruba, Moko &c.); Gongo, Galla; Hottentot.

2. *dudi*. Bornui, Berber, Egyptian; Semitic.

3. *tut, tatie*. Zimbian; Galla; Himyaritic, Tumali.

4. *ni, nai* (common Nigerian); Zimbian [See Woloff.]

5. *jui, iowie, iei*. Egyptian. In Timbuktū, the *i, ai* or *ya*, that represents 5 in the higher numbers appears to be the Fulah term. In Timbuktū 5 itself is *a-gu, e-gu*, (Bornui *o-gu, o-ku*, the widely disseminated *gu, go, ku, 1*).

6 to 9.—5, 1; 5, 2; 5, 3; 5, 4

10. *sapo*. The *po* of 1 and 5 (see Mandingo), with the Egyptian, Gonga, Hottentot and Malagasy *sa* prefixed.

bare roots, than the adjacent languages, but some of the common definitives occur. The most frequent is the postfix *-di*, *-ri*, *-de* &c., a form which is also affected by Mpongwe. *

The Kru are succeeded by the tribes of the Ivory Coast, the structure of whose languages is unknown. The principal tribe, called Kwakwas, properly Evekwam (or Avekwom) are said to have "a barbarous inarticulate language", but this description requires interpretation into more exact terms. The Revd. Mr Wilson's vocabulary (Jour. Am. Or. Soc. i, 349) shews that it is harmonic and vocalic, like the languages to the westward of it. Substantives have definitive prefixes and postfixes and frequently both, as in Zimbian. Amongst the former *e* is common as in *E-fik*, one of the Calabar languages, and also in the languages of the lower Niger. It also occurs as a postfix, sometimes hardened to *ye* and varied to *ia* [*ya*], or *a*. Amongst the postfixes are *di*, *re*, *be*, *ye* &c. (Zimbian prefixes). Ex. "arm" *e-bo*, Ef. *u-bok*, Yebu *ak-wa*, ef-*wa*, Mand. *bu-lo*; "Basket", fan-*di*, Ef. *ak-pan*, *ak-pa-sa*, Yeb. *ag-bwa*; "Ear," *e-shi-be*, Fanti *a-so-a*, Yebu *e-ti*; "Goat," *e-mo-re*, Grebo *wu-di*, Ef. *i-bu-d*.

The Fanti of the Ashanti group of dialects, like the Woloff and Fulah, affords evidence of the northern extension of the influence of the prefixal system of the great Southern formation. Its prevalent plural particles appear to be *i* and *w* or *m*, as in Mpongwe and other Zimbian languages, but they are sometimes mere flexions of the singular ones, as is the case with some of the Zimbian. Thus *ba* and *a* become *ma*; *i* and *a* are changed to *e*; and *e* to *a* or *i*. These vowels sometimes take *n* as a postfix. *A-soa*, *en-soa*; *e-krum*, *in-krum*. But there appears to be considerable irregularity, owing to the tendency to mere flexion and euphony, as in the Hausa plurals. *Sikan* becomes *a-sikan*, although *a* is the common singular definitive; *en-sem*, "hand", becomes *hwan-sem*. In *a-nan-sa*, "foot," (pl. *i-nan*) the root has both a prefix and postfix. The possessor is placed first, with or without the particle *ne* or *n* (Egyptian, Hausa, Malagasy.) In the vocabulary *ma*, *ba* appear also as postfixes, and occasionally *ri*, *ru*, *ji* (probably *di* of other languages). *I*, *e*, and *a* are frequent prefixes.

* The Kru numerals are Zimbo-Nilotic like the preceding. *Sa*, 2, is probably of Berber origin. *Sepa-du* 9 is the Fulah 10 (*Sapo*) and Kru 1 (*du*) 1, i. e. 10 less 1.

The pronouns are Zimbian (1st *mi*, 2d *ano* Pl. for Sing.*) †

Efik (Calabar) has a considerable proportion of consonantal finals like Woloff. The monosyllabic roots frequently suffix *ma*, *m*, *p*; *na*, *n*, *ng*; *k*, *t*, (Zimbian *prefixes*). The prefixes are *o*, *i*, *e*, *a*, (Zimbian) chiefly, but *ka* &c. also appears inverted, *ah*, *uh*, *oh*, *ih*, *ek*.†

The prefixal and reflexive Southern formation is found more fully developed further to the east and south beyond this province, in the languages of the Batanga, between the Cameruns and Gabun, and in the Mpongwe of the Gabun, which is Zimbian. The Mpongwe is prefixal, and the prefixes have frequently the purely vocalic forms prevalent amongst the Guinea languages. In the plural *i* is changed to *a*, and *o* to *i* or *a*. Consonantal definitives take *i* or *si* in the plural. The consonantal definitives appear to be *ya*, *nya*, *za* and *wa*, their vowels varying to *o* and *i*. In the plural *y* is changed to *sa*; *nya* to *ma*; *za* to *ya*; and *wa* to *ya*, so that some particles have both singular and plural applications, as in the southern and eastern Zimbian. All these definitives and the same system of euphonic flexion are found in the other Zimbian languages. In Mpongwe, as in these, they are repeated or reflected in connected words. Agentive nouns prefix *o* (u- of Kafir &c., -u of Semitic) and in the imperative to an allied one, *b* and *f* to *w*; *d*, to *t*; *j* to *y* &c. The Mpongwe connects the Zimbian with the Guinea and Nigerian languages. It is probable that the modification of Zimbian represented by it spread, as an influential formation, along the Guinea coast and up the Niger.

I have glanced at the languages immediately succeeding those of the Niger, to indicate the probable direction in which the harmonic Southern formation chiefly spread into the Western province. I now return to the Niger, there being no grammatical

* Mr Wilson gives also Sing. *ehwam* Pl. in which the Zimb'ian roots are reversed. Mr Bowdich gives away "thou," awoo "you," and in Akra boh "thou," nnheay "you," which are Zimbian.

† The numerals have the same general range of affinities as those of the preceding languages.

1. in both its forms is Mandingo, ete-*k-ri* (*ke-ring* &c. M.), e-*ton* (*don-do* Vei). 2, a-*nyu* (Ashanti, Afutu, Amima, Akim, Tambu, common form of root *nu*); Bornul, Nilotic-Semitic; Malagasy. 3, a-*za* (a similar range of Nigerian affinities); Galla; Agau; Semitic; Zimbian. 4. common Nigerian. 5, e-*nyu* (same Nigerian range as before, see also Mandingo); Zimbian 6, *awa* (Mandingo). 7, e-*biu* (Hausa, 2). 8, e-*tye*, 3, as in Lower Nigerian &c. (comp. Fanti *awa-tyi* which preserves the form of 1 and 5 found in the Avekwom 6). 9, e-*mu-na* (5, 4, the Grebu form of 5). 10, e-*jiu* (*du* of adjacent languages, the 1 of Grebu &c.)

† 1 *ket* Sudanian (Kalahi, Begharmi); Bishari &c. 2, i-*ba* (common in adjacent languages); Sudanian; Galla &c. 3, i-*ta* (Kru &c.) See Woloff. 4, i-*nan* (common Zimbo-Nigerian). 5, i-*tien* (common in adjacent languages); Zimbian like the Mandingo term.

data for the languages of Dahomey, which are intermediate between the Fanti (Ashanti) and those of the Niger. For the dialects of the Eboe or Ibu tribes, who possess the lower basin of the Niger or Quorra on the eastern side, our information does not extend beyond some short vocabularies which exhibit many eastern affinities (Nubian &c.) On the west the Yebu and Yoruba dialects are better known. The Yebu is the language of the seaboard. It has definitive prefixes and postfixes, generally vocalic as in Yoruba, but some are consonantal, the consonant, however, being frequently transposed. Thus the wide spread *ha*, *ga* &c becomes *ah*, *ag*, *ig*, *eg* &c as in Efik. Yebu is equally monosyllabic and crude with the Mandingo, and the agglutinative power is also similar. The pronouns (Zimbian) and time assertives are agglutinated so as to appear inflexional, as in Fulah and Grebo their relative position, however being reversed (as in Yoruba, Mandingo, and Hausa) and thus assimilating to the Zimbian.

The Yoruba or Oyoh is spoken to the north as far as Katanga. It has affinities with the Mandingo group, being crude and with many monosyllabic verbal roots, but in collocation it is direct like the Hausa, which is spoken further to the North. It has the compound consonants *gb*, *hp* of the Mandingo group, as well as *mb* of the Zimbian and Malagasy. It is said to have no definitive or sex particle, but substantives appear to contain some concentered Zimbian definitives, like the adjacent Calabar languages, e. g. the prefixal vowels *a*, *o*, *i*, *e* which are found also in the 3rd personal pronoun, and prefixually in the other pronouns. Some of the Zimbian languages prefix the vowels to the definitives as well as postfix *o* and *i* to the root when it is made substantival. The pronoun is assertive in its applications, but not agglutinated or inflexional as in Yebu. There are several assertive and other monosyllabic particles which aid the pronoun in making roots verbal. The objective of the 3rd person singular is the vocalic definitive, which varies with the vowel of the root. The pronoun has reflective forms in which it twice repeats itself. Ex. *ongtikarareh** *di'rareh*, "he binds himself," [he-of-self binds self]; *emitikarami* *feh rami* "I love myself;" *awongtikarawong rahn' rawong*, "they help themselves." In the use of the participial prefix, *n̄g*, there is also much pleonasm. *Moti ri or*, "I have seen thee"; *o ti ta oh*, "he

* *Arareh* is "sell," "one's self".

has sold it"; o *ngti ngta* oh, "he has been selling it." The *ti* appears to be the same particle that is used as the possessive and relative. Its frequent employment in the business of conjugation shews that the root remains crude or substantival. The pronouns are Zimbiana,—"I" *emi* &c, "Thou" *iwor* &c, in the plural *ehnyi*, *nyi* &c. *

The Yoruba is succeeded on the east bank of the Niger by the Nuhi, and on the west by the Borgho dialects, for which no grammatical data exist. † According to Clapperton, Borgho is a dialect of Yoruba, and the Hausa language is also spoken in the same province. The Fullahs are a subject class of the population of Borgho, which is an ancient dependency of Bornu, the parent country of the dominant race. The aborigines are the Cumbrie. (Pr. ii. 118 &c.) To the north of Borgho are tribes called Gurma, said to be naked savages. Of their languages nothing is known.

* The Yebu and Yoruba numerals are, 1, A. e-ni, *i-ne* (na Ib., variations of the common forms in *de, di, da, ta, 'c*). B. *oko* (Yoruba, Akripon &c.); Galla &c. 2, e-yi, Yoruba e-ji ma-ji. 3, e-ta (Calabar, Kru &c). 4, e-re e-ring (Bullom ra), probably a variation of the common *ne*, of Yoruba and other adjacent languages. 5, a-ro *arung*, (from *wo-ro*, see Mandingo, as in the Mpongwe, 7). 6, e-wa, Yoruba e-fa, ma-i-fa, fa=1 (Tombuktu &c). 7, e-ye, Yoruba e-je, ma-ji (2, Tombuktu i-ye). 8, e-yo, Yoruba e-joh ma-jo. 9, e-so, Yoruba e-sang, ma-iso (1 Gonga &c). 10, e-gwa, Yoruba ehwah, maywah, Sudanian gwo-ma, go-ma, Bornui me-gu; Zimbiana.

† The Nuhi numerals are:

1. *war-ni* (Shabbe *war-ni*, Rungo, Mpongwe); Nubian (*war-um* &c.); E. Nilotic [see Mandingo.]

2. o-gu-*bar*, Shabbe, *hus-war-ba*, the prefixes being terms for 1 (common in the Lower Nigerian languages, Niger to Gabun); Sudanian (e. g. *bur-gu*, "first", Bornui); Galla. The prefix o-gu, 1, is also Sudanian (1, 3, 5), and Galla (1 as well as Fulah, Fanti &c. The 1st term of the compound Shabbe pref. *hus*, is Gonga (1 *iso*, 3 *hezza*, 5 *huch*, 6 *husu-pona*, in all which it is 1, *pona* representing 5 in the last term as in *hodu-pona* 9, i. e. 4, 5)

3. o-gu-*tar*, Shabbe *hus-war-tar* (Calbra, Rongo); Zimbiana.

4. o-gu-*i-ni*, Shabbe *hus-war-ni* (common Nigerian); Zimbiana.

5. o-gu-*tso* (Ibo); Nubian; E. Nilotic.

6. o-gu-*sue* (probably 5, 1.)

7. o-gu-*i-wa-bi* [=t-war-bi], 5, 2.

8. o-gu-*tu-tar* [=t-war-tar], 5, 3.

9. o-gu-*zwar-ne*, 5, 4.

10. o-gu-o (=o-ko, o-go, 1, &c.)

These terms concur with those of the previous systems in proving that Sudanians of Nilotic race have advanced into the basin of the Niger, and spread down it and beyond it to the south.

Shabbe, according to Mr Oldfield (ii Prichard 369, 370), is the language of the Ibodah or Kakunda on the west bank of the Niger, between the Ibu (of the east bank) and the Yoruba and opposite the Nuhi of the eastern bank. Mr Crowther, in the Introduction to his Yoruba grammar (p. i) says "the Kakanda language may safely be called a daughter of the Yoruba." The numerals are Nuhi more than Yoruba. The Nuhi have the Hausa on the north and on the southern or western side are divided by the Niger from the Yoruba and the Ibodah (Ibomuo of d'Arvezac).

The Yebu are to the south of the Yoruba on the coast, succeeding the Binin tribes to the west, and succeeded by the Dahomey tribes (Whidah &c).

B. THE SUDANIAN OR EAST NIGRITIAN LANGUAGES.

Hausa, which belongs to the Central or Tchadian as well as to the Niger province, is not only direct in its collocation like Yoruba, a tendency that might have been referred to the influence of Zimbrian, but has special traits that connect it with North African or Semitico-Libyan. It has the possessive *n* of Egyptian, Fanti &c. and masculine and feminine terminals. The prefix of Egyptian also appears in qualitatives. Assertion and tenses are thrown on the pronoun, aided partially by auxiliary assertives. In the future only, the pronoun is reflected in the root by prefixing its final vowel, as in some of the Tumali pronouns. As the past or "completive" is denoted by the simple preplaced pronoun, the future may be considered as an intensification of it, i. e. what will be completed. But Mr Schon's grammar is very defective in its account of the verb. Hausa has formative postfixes, but they have not yet been well explored.* It is vocalic, with a tendency to monosyllables, as in Yoruba, Yebu &c. Double vowels are common from the frequent ellipsis of consonants. The basis appears to be nearly of the Egyptian stage of development, and it probably resembles the generality of the North African languages before the Shemo-Hamitic supraformation began to influence them. The plural is formed, as in Emghedesi, Fulah, Berber, Tumali, Galla and Arabic, partly by postfixes and partly by augments, inversions and other flexions of the final or final syllable, caused probably by the agglutination of different particles, amongst which the widely prevalent *i* and *na* may be recognized. The pronouns belong to the Semitico-Libyan and not to the Zimbo-Nigerian family. Like Hottentot, Hausa, to some extent, preserves the distinction of sex in the 1st pronoun as well as in the 2nd and 3rd. 1st, *ina* masc., *nia*, *ta* fem., *ni* common; 2nd, *ka*, *kai* m., *ki* f.; 3rd *shi*, *ya*, *sa*, m., *ta*, *ita*, *tai* f. The double vocalic forms are also found in Emghedesi and Malagasy.

The striking peculiarity of Hausa is the direct collocation, which distinguishes it alike from the Nigerian languages on the west and the Nilotic on the east. It has been influenced like them by Zimbrian, and it is closely connected with the Nubian and still more

* The formatives hitherto ascertained are *-da* intensive, and the common *-shie*, *-es*, causative, intensive. These are combinable *-es-da*.

with the Galla group, but the absence of the Galla-Mandingo inversion shows that it never came under its influence, or has thrown it off and regained the Egypto-Berber or ancient Libyan collocation. It is not probable that a formation so powerful as the Nilotic appears to have been at one period throughout Mid-Africa, would suffer any language to remain isolated in the central and accessible position now occupied by Hausa. It may rather be inferred that Hausa was at one time located to the north in the outskirts of the Berber region, and that it spread into the middle province after the Nilotic formation had pervaded it, partially affecting in its progress the lower Nigerian languages to the south of it (Yoruba). When it advanced down the Niger, the Zimbian formation also appears to have ceased to be influential to the north of the dividing range. In its general character, apart from the collocation, Hausa appears to resemble Galla more than Berber.

Its vocalicism connects it with Bornui, Tibbo, Nuba, Shangalla &c. on the one side, and the vocalic Nigerian and Zimbian languages on the other. The Zimbian phonology probably reached Sudania chiefly by the Niger, but the Galla and Tumali show that it operated strongly at one period in the Nilotic province. Although the basis of Hausa is Libyan and its archaic phonology must have been consonantal, it is probable that it was subjected to Zimbian influence and had become vocalic, before it received a great influx of East Nilotic words. In its present form, the formative basis, the pronouns and much of the vocabulary are Libyan; the phonology and also much of the vocabulary are Zimbian; while its special connection with the E. Nilotic languages, apart from the common Libyan basis, is glossarial.*

* The Hausa numerals are chiefly of E. Nilotic origin (Agau, Gonga, Shangalla), but some are Semitic through N. African, and one is Zimbian through Lower Nigerian.

1. *deia, daea, daia*; in other dialects *daiak, naya* (Kashna); Bornui *la-ka, la-ska*; Agau *la-gha, Gonga i-ka*; Dairur *di-k*; Galla *to-ko, ta-ka, Danak ini-ke* &c. [root *ka*; pref. the def. *t, d, n, l.*]

2. *biu, bue, bu, beyu* (Lower Nigerian com., also Kissi-*miu*); Nubian; Galla element; Zimbian element; not Semitic.

3. *uku, oku, okai, wuku, buku*, (kwan Kalahe); Bornui *ya-sku*; Shangalla *ukag*; Agau; Himyaritic (see Nufi; *gu, ku ka* &c. is 1, 3, 5, &c. in many systems, and, as 5, occurs in higher numbers).

4. *fudu, hudu, fodu, odu* (fulu Kalahi); Tibbo *fuso*; Gonga; Galla; Malagasy; Egyptian, Semitic.

5. *biat, biar, bier, bakwi, bea* (vydie Kallahi; Lower Nigerian *bite*; (Akuongo bitan &c.); Zimbian through Lower Nigerian.

6. *shiitta, shidda* (Ength *sitta*,) Arabic; Berber; Shillab, *suth*; Kallahi *zudu*.

For the other languages of the Central province there are no grammatical and very scanty glossarial data. The Bornu dialects appear to be the most vocalic. The definitive *ka*, *ga*, *kan* &c is generally prefixed and *ma*, *mi*, *m* frequently postfixed.*

Begharmi has a definitive postfix which takes the forms *inja*, *engeh* and *ja*.

Mandara, to the south of the Begharmi and Bornu, frequently postfixes *la*, *ra*, *le*, *re* (like some of the Nigerian languages on the west and Koldagi and Dalla on the east). It prefixes *u*, *o* (like

7. bokoi, bokwoi, wokoi, boekwa, bekai (5, 2; bak-wi 5, Kwallalifa).

8. tokos, tokus, togus, (? 5, 3; 4 dual, digu, deku Bornui, a-taki Sangs.; perhaps a modification of the Agau saghota. 3. 5. But it may belong to the same E. Nilotic system, with the 5 before the 3. Comp. *hes* 3. Yangaro. So in *ma-kus* 5, *man-kus* 10. Shangalla, the Shangalla 3 r. placing the final Semitico-Nilotic *s*, *z*, *th*, *d* &c, by *g* (u-kag), as in Himyaritic, Agau, &c. In the Shangalla 8, the initial *k* is the Semitico Nilotic *s*, *sug-ua-ta* (as in Agau.)

9. tara; Bornui *la-kara*, Galla *se-gala*.

10. *goma* (plural, *gomia*), *gomar*, *goman*, *gwoma*, *woma*; Tibbo, *mar-kum* (Berb, *meraua*); ? Zimbian *kumi*, *kome*; ? Semitic 5 (*khoma* Mahrah, *kham-sa* Arab.) The Shangalla *man-kus* 10 (= *ma-kus*, 5) resembles the Tibbo *mar-kum*. It may be the source of *mar*, *man*, in the Tibbo and Hausa, in which case the *go*-of the latter will be reduced to a prefix. The full form *go-mar* may be an inversion of *mar-go* [= *mar-ku-m*, *mar-ku-s*]. The vowels, with the absence of the Zimbian term in the Nubian and Nigerian languages, fortify this view. Although it is necessary to discuss the possible active affinities in the first instance, and no others are adverted to in these notes, it should be stated that the African systems are all of Asiatic origin, and that in many cases more close and direct affinities are found in Asiatic systems, especially in the Scythic N. and E. Asian of which the Euskarian, Caucasian and Indo-European are merely branches. The Hausa terms for 8 and 10 have direct Scythic affinities.

Some of the included or contiguous systems have a few peculiarities.

1. Kallahi *god*i (Calabar *ket*, Tembu *kud-um*); Begharmi *kide*; Bishari *en-ga-t*
2. Kallahi, *sili*; Arabic *i-sinen*, Tibbo *sin*; Comp. also E. Nilotic *helita*, *kiliti* &c; Zimbian *sol*i, &c.

7. Kallahi, *etkasa* (? Hausa 8.)

8. Kallahi, *shidan-ka*, Kwolla-lifa *sidda* (Semitico-Afr. 3, i. e. 5, 3, as in the Hausa 6, i. e. 3 dual).

* *Note on Bornui and Emghedesi.* Since this paper was prepared for publication I have received from Mr Edwin Norris a copy of his "Grammar of the Bornu or Kanuri language &c." The vocabularies &c of Dr Barth have also thrown further light on the language of Timbuktu.

Bornui.

In his introductory observations Mr Norris remarks, "It will be at once obvious that the grammar is quite unlike that of the hitherto known Negro languages, and as unlike the grammars of the Galla and Kaffir classes, which fill up so large an extent of Southern Africa. Its structure is rather more like that of the languages of the Tartar class, especially the Turkish dialects; inasmuch as its nouns are fully declined by postfixed syllables; its roots are not subject to any modifications; it forms its plural by adding a syllable; it has an accusative case; it uses possessive pronominal affixes; it has negative verbs; and its verbs have distinct personal endings, which are however unconnected with existing pronouns. There appear also some traces of the Tartar vocalic harmony. Arabic words, as might be expected, are found in the language, though not many; but it is a singular circumstance that some are found more closely incorporated than is usually the case with borrowed words; verbs and particles, as well as nouns. We have here certainly a language of a class decidedly different from those spoken by the several races inhabiting Africa whose languages have been hitherto studied. Further research will determine

Efik, Yoruba, Mpongwe &c in the west, and Bishari, *o, wo*, in the east). Its prefixes and postfixes appear to connect it with the lower Niger and the adjacent coasts rather than with the E. Sudanian. It belongs to the basin of the Tshadda, the great eastern tributary of the Niger. Its affinities with the Begharimi vocabulary are very slight. The structure of the words is also different, the Mandara being vocalic, while the Begharimi is sometimes consonantal. Compound vocalic sounds are common in Mandara as

whether the Begharimi, Mandara, and other adjacent tribes, speak tongues allied to the Bornu, and whether any physiological characters shall be found to distinguish these people ethnologically from other Negroes as definitively as these differ from the Gallas and Kaffirs."

From the brief review which I have given of the Mid-African languages, it is clear that the Scythic characters to which Mr Norris draws attention, are not confined to Bornu, but that some are common to all the African languages, while others belong to a formation which has exerted more or less influence throughout Mid-Africa.

The language is highly euphonic and vocalic, nearly all syllables ending in a vowel, a liquid (*n, l, r*), or a sibilant. The demonstrative *t, 'i*, is sometimes postfixed to substantives as in Semitico-Libyan (Egyptian, Berber *t*, Danakil *ta*, &c.) Substantives have no possessive postfix. The directives are *-ru* dative (*ra, la, da*, Mandingo group); *-ka*, objective (Berber *k*); and *-bi* or *-bin* ablative (*?-ma* Susu). The plural postfix is *-wa*, which precedes the directives as in other African languages, in Scythic &c. It is the *-u*, of Egyptian, Semitic &c. and *wa*, prefixal, of Zimbian. It occurs also in Yebu, Yoruba, and Vei. The terminal *ma*, noticed in the text, is a formative denoting the agent or the means or place of the act. The postfix *-ram* appears to denote an accessory of the root (e. g. *kala*, "head," *kalaram* "pillow" i. e. a thing for the head). *Wa* and *bi* also form qualitives.

The pronominal system shews strong marks of having attained its present form during the prevalence of an agglutinative phonology like that of Tumali, and of being the result of a blending of formations. The separate forms are 1st *u*, (*wu*, in the dative and objective); 2nd *ni*; 3rd *shi*. The final *i*, common to the 2nd and 3rd, and the *u*, of the 1st, become *a* in the plural, and take the postfix *ndi*, in which *n*, is probably euphonic, as it is used euphonicallly in joining the pronominal postfix to some verbs (*di* is the Nigerian *ri*; Zimbian *li*). The possessive element is prefixal. It is the widely spread Asiatic (Scythic, Dravirian &c.) *n*- found in Egyptian, Hausa, Malagasy &c. S. 1st *ni* [= *n-ni*], 2nd *num*, 3rd *nshi*; P. 1st *ndi*, 2nd *ndu*, 3rd *nsa*. In these forms we see the operation of a commutative, agglutinative, and flexional phonology. The *ni* of the 1st person is probably the Semitic or Zimbian term. If not, the root disappears altogether, the term being merely the possessive *n*, followed by the *i* found in the 2nd and 3rd persons singular, in the verbal postfixed forms of all the persons, in the demonstratives *ati, ti*, in the interrogative *afi* &c. and which is obviously a definitive postfix [See the remarks on the Semitic *n*, of the 1st pronouns]. In the 2nd person the *n* of the singular is flexionally commuted to *m*, as in Scythic, and in the masc. and fem. form of the Semitic plurals of the 2nd and 3rd, but *u* also appears as another element (probably the plural *u*). In the 2nd person plural (*ndu*) *u* re-appears as the flexional variation of the 1st pronoun (*ndi*). The verb has pronominal postfixes as in Galla, and these present some peculiarities. The terminal definitive *i*, appears in the 1st as well as the 2nd and 3rd persons. The 1st person *-shi* has no apparent relation to the separate form *u*. The 2nd *mi*, contains the distinctive *m* of the possessive form *num*. If it is not a native flexion of the *n* of the singular, it is connected with Berber and Zimbian forms. In the latter the consonant varies (*w, m, n*, also *v, f*). The 3rd is the separate pronoun *shi*, and, unlike the 1st and 2nd, it is prefixed to some verbs. In the plurals a new plural element appears, *y*. In the 1st person, *yi*, it is simply prefixed to the definitive *i*. The 2nd person is *yu*,

in Hausa, (e. g. *ue*, *chiwa*, *auw*, *auanofua*, *ua*, *zadaue*, *aoaya*, *yoe*). It has glossarial affinities with the Niger languages (e. g. "man," *gile*, Yor. *orkori*; "milk," *uba*, Y. *omuh*; "head," *ire*, Y. *ori*, *eri*; "blood," *wje*, Y. *eje*).

The Bergoo vocabularies appear to have also guttural postfixes, so that both the Begharimi and Bergoo probably preserve the Nubian element more fully or more purely than the Bornu and Hausa.

in which *y*, is followed by the distinctive vowel of the possessive form. The 3rd is *sha* or *shay* in which the plural *a* of the possessive form re-appears. All doubt of *y* being a distinct plural element or particle is removed by its sometimes following not the prefixed pronoun but the root, as in *shi-ragay*. It is probably the widely prevalent Semitico-African plural *i*. It thus appears that the verbal plural forms, like 2nd person singular, are immediately derived from the possessives. We may conclude that all the personal postfixes were in their origin possessive forms and this is in accordance with a general philological law, and with the analogy of other Mid-African languages.

The regular postfixal position of the pronoun connects the Bornui not only with Galla but with the most archaic or least modified formations of Africa, the Egyptian and Hottentot. The reason of this collocation is probably to be found in the fact that assertion, or the verbal form, was originally expressed through the possessive, which, by the Semitico-African collocation, was postplaced. In the other Semitico-African languages the position of the pronoun varies, even in members of the same alliance. In Arabic and Hebrew it is postfixed in the preterite, but generally prefixed in the aorist. In Babylonian, as in one form of Egyptian (Coptic), it appears to be uniformly preplaced as in Zimbrian in Yebu, in some other Nigerian languages, and in Tumul.

The Bornui pronominal system does not exhibit that strong affinity to the Zimbrian which is found in the Nigerian languages. The adjacent tongue to the westward, Hausa, is the first that disconnects itself from the Zimbrian system, and is therefore the first to be compared with the Bornui. There are some clear affinities. The Hausa 1st person is *ni*, (also possessive). This is the Bornui possessive. It is Semitico-Libyan. The 3rd Bornui pronoun *shi*, is also Hausa, *shi*, *sa*. The Bornui plural *u*, of the 2nd person, possessive and verbal, is the plural element in all the Hausa pronouns. It should be remarked that in several Zimbrian languages *u* is distinctive of the 2nd person. Thus in Kongo it is the verbal prefix of that person. The prefixal possessive *n-* of Bornui is Hausa also (Hausa *I n*, [= *n ni*], 2nd *nka*, 3rd *nshi*, *nza*).

The *ni*, (*ni*), of the 2nd person is not Hausa. but Emghedesi and Gonga. The same root may appear in the Berber fem. prefix and postfix *ni*, *em*, (masc. *ke chi*).

The Tumul pronominal system is so elliptic and flexional that the roots are obscured. There is no apparent affinity between it and Bornui.

With the Galla pronoun system the Bornui agrees in the possession of the common Semitico-Libyan 1st and 3rd persons (*ani*, *zi*), and it may perhaps be added in the use of *u*, as a plural element. In Galla it occurs in the 1st person (*S, ani*, P. *unu*, *nu*) and in the verbal postfixed plurals of the 2nd and 3rd persons, as in Amharic and Arabic. The Bornui plural of nouns—*wa* probably presents the same element. It occurs in Vei and Yoruba in the 1st personal pronoun, and in Berber in the second person plural throughout as a pref. *w-*

Of the three Bornui forms of the 1st person, it has been remarked that the possessive *ni*, is Semitico-Libyan. The separate form *u*, *wu* is Berber and Egyptian. In Berber *u* occurs as a postfix to prepositions, and in Egyptian it is a postfix to nouns and verbs. The verbal postfixal form *shi* is probably Semitico-Libyan, *k*, *ki* being an element of the 1st person in most languages of the alliance. The prefixed sibilant of Bornui appears to be anomalous in Mid-Africa. It may be merely an euphonic augment, as in *la-ska* 2; *ya-sku* 3, &c. In the glossary the sibilant augment occurs with other sounds, *sb*, &c. But *s* or *t* is a definitive, and also an

C. THE NILOTIC LANGUAGES.

I. WEST NILOTIC OR NUBIAN.

For the Nilotic languages we fortunately possess some important grammatical data. The Tumali grammar of Dr Tutschech appears to disclose the proper Nubian formation, and proves that its characteristics are, in many respects, different from what might have been expected, if we had assumed that the Egyptian language represented the pre-Himyaritic formation of the whole basin. It

archaic pronoun of the 1st person, in Africa. It occurs in Hottentot, some of the Zimbian languages and Malagasy. Malagasy preserves the Bornui combination in *iza-ho* "I" (in which *h*, can be identified with the Semitico-Libyan *k*) and *izi-kia* pl. incl., *n-tsi-kia* ib. possessive. The Hottentot is probably still more archaic, and it is closer to the Bornui. In one dialect the reduplicated sibilant *sisi* is the plural of the 1st person. In the possessive plural it is *sisiha*, and as the Bornui verbal form appears to be undoubtedly possessive, it may be connected with the Hottentot term. If so the *k* is not the Semitico-Libyan pronoun but primarily a possessive particle as in Galla and Hottentot. The intermixture or confusion of plural and singular elements is common in composite pronominal systems. The Koraua dialect has *sikye*.

The Bornui numerals are generally similar in their range of affinities to the Hausa.

1. A. tilu; Mandingo; Agau; Tibo *trono*,
B. la-ska, la-ka; Hausa da-yak; Agau la-ga.
C. (ordinal) bur-gu; Hausa fahri; Nubian war &c; Gongga (in 6). The *gu* is the common guttural l [see Hausa 3].
2. indi (Fulah *didi*); Semitico-Eg.
3. ya-sku (Hausa); E. Nilotic.
4. di-gu; Emghedesi a-ta-ki; Bishari u-di-g.
5. n-gu; Timbuktu; Agau; Nigerian [common, 1, 3, 5 &c. see Hausa 3].
6. a-ra-sku, 1, 5.
7. tulur, 5, 2; Zimbo-Mandingian, dulu 5, as in Galla *tor-ha* 7, (5, 2).
8. wu-sku (3, 5, Comp. Hausa wu-ku 3).
9. la-ka-ra (1 la-ka), Hausa ta-ra, Galla se-ga-la.
10. mi-gu (probably *ga*, 1, 5, &c, with the labial pref., as in Shangalla man-ku-s).

Emghedesi.

I have only cursorily examined Dr Burth's vocabularies of Emghedesi, the language of Agadez, Timbuktu and eastern Bambarra. Compared with Hausa, Bornui and Fulah it is consonantal, but the great majority of the words are vocalic. *Te-*, *ta-* is a substantival prefix as in Berber and Bishari; and *ka-ha-*, *a-*, *hen-*, *en-* &c. are both substantive and qualitative. *A-* becomes *i-* in the plural, *o*, (*eo*, *io* &c)—sometimes *u*, *a*, *an*, *en*—being also postfixed. Some plurals are flexional like the Hausa, Berber &c. "Eye," *mo* s., *moeo* p.; "Leg" *ke* s. *kee* p.; "Tongue," *ashan* s., *ishenan* p.; "Bone," *binji* s., *binjo* p. "Finger," *aded* s., *adeduan* p.; "wing," *furau* s. *furauen* p. "Monkey," *auerkit* s. *urkidda* p.

The pronouns are, 1st *arai* s., *aridu* or *irreda*, *irre* pl.; 2nd (A) *ki* or *kia* s., *henoru* p., (B) *ne*, *ne-da*, *ni*, s. in *du*, *henoru* p. (i. e. *ni*, *ne*, in *=hen*, *du=ru*). The 3rd person has masc. and fem. forms, (A) s. *inga* m., *anga* f., pl. *ingi*; (B) s. *aru* m., pl. *ariu* m., *aridu* f. The *ar* of the 1st appears to be a def. pref. as it occurs in the 3rd pronoun. It is the Semitico-Egyptian *an-*, *a-* &c. The root of the 1st person, *ai*, *ae*, occurs separately before verbs. It is Semitico-Libyan *ani*, *nai*, *a*, *i*, *e*, (*=ai*) and Hausa (*nai*, *na*, *ni*, *ina*, *in*). The plural elements *i*, *u*, *du*, *ru*, (Semitico-African generally) occur in the plural. The 2nd person *ki*, *kia* is Hausa, and Semitico-Libyan. The form *kia* is Malagasy. [Possibly the English plural *hen* may contain the root *ki* of the singular, the guttural sometimes changing to the aspirate]. The other root *ne*, *ni*, is Bornui, Gongga (*ne*) and Malagasy,

is the most inner of all the Nilotic languages of whose structure anything is known, and its position in the upper basin of the Western or White Nile invests it with much interest. Its relations to the Sudanian and Nigerian languages on the one side, and to the Agau, Gonga and Galla of the Blue Nile and Juba on the other, will probably, when better understood, throw much light on the ethnology of the Nilotic province. The Tumali is consonantal, but with vocalic and strongly harmonic tendencies, agglutinative, weakly agglomerative, pleonastic, reflexive and inverse. Phonetically it allies itself more with the Assyro-Berber than with the Zimbian languages, and its agglutinative tendency and consequent flexion and quasi-flexion more resemble Caucasian than Semitic. On the other hand it exhibits many of the traits of the Zimbian family. In its very strong and decided affinities to both branches, and its independent phonetic and other leanings to Caucasian, it is perhaps the most important of all the known African languages, and a deeper comparative analysis than it has yet received, or the present data admit of, would certainly lead to inferences of the highest interest both for African and Asiatic ethnology. The pronoun reflects itself in the verb prefixally, partly by its final vowel, as in the future of Hausa, and partly by its consonant.* Tense is partly denoted by prefixes and flexions. The past is *e* (Zimbian, Galla,) prefixed, substituted for the vowel of the root, or postfixed. The particle *ir* (Zimbian *ri*, *il*, postf.) appears also to be prefixed to the verb, that is interposed between the pronominal reflex and the root, e. g. ngo *w-ir-in-e*, "thou wert," i. e. *w* reflex of the *o* of the pronoun, *ir* past particle, probably possessive, *in* the root with its vowel assimilated to that of *ir*, *e* the past postfix. This example exhibits a degree of agglutination and attenuation of roots that is entirely Assyro-Berber, Caucasian, Euskarian and American in its character. In other cases there is also a change in the vowel, but, in general, it does not appear to follow any ideologic rule and is probably merely euphonic. In the negative and future forms there are some regular euphonic vowel changes. It has transition forms, in which the objective pronoun

and it may also be Zimbian *nui*, *ni* &c. pl. (comp. Fanti *ano* sing.) The pronouns are annexed to words used assertively both in agentive and objective forms. The present has a generic assertive *nga*, *ngi*, (Zimbian), its vowel changing with the final vowel of the root, e. g. *aibara nga*, "it must"; *afiki ngi* "I store up."

* See an example in Sub-section 1.

is prefixally agglutinated with the root, as in Georgian, Zimbian and American. The plural prefixes of the substantive, *h*, *s* or *y*, (Zimbian *s*, *i*) are reflected in connected qualitives, pronouns and numerals, and the initial of the substantive (probably definitive as in Zimbian) has a great tendency to reflect itself in the qualitive. Utru, "great;" adg utra "head great," pl. *hadg kutrun*; dget *dgutru*, "man great," pl. *singet sutrun*; dgigat *dgutru* "girl tall," pl. *ngingat ngutrun*; burt *butru*, "wall large." If the initials of the substantives are not definitives, the habit must be merely euphonic and imitative. In Zimbian it is original and ideologic. Some words, in addition to the prefix, have a postfix *-e* or *-n* in the plural (Semitico-Lib.) There is some irregularity in the plurals of several words as in Hausa, Fulah, Emghedesi, Galla and Arabic. The agglutinative tendency is strongly marked in the pronouns, which are very Caucasian both structurally and glossarially. The roots have been reduced to the vowels *i*, *o*, *u*, as in Zimbian and Semitic annexed forms.* Similar pronominal elements are also used as—or connected with—tense or assertive particles in many of the Mid-African languages. A particle abraded to *ng*, and evidently definitive (Semitico-African *na*, *an*, *n* & c, Agau 3rd pron. *ng*) is prefixed to these root remnants in the common forms, but postfixed in the possessive, *r* (demonstrative) being prefixed. In the common forms the plurals are denoted by the postfix *de*, *da* (Galla,) but in the possessive by a pure flexion, *ng* becoming *n*. *Ng*-appears to have a possessive force, as it is prefixed to verbs to render them adverbial, and to substantives to render them qualitative. The agentive forms of the pronouns may therefore be radically possessive.† There is no distinction of gender, a remarkable point of agreement with the Zimbian and most of the middle languages, and it may be added, with Caucasian. The root takes formative particles—substantival, directive, active & c. These are chiefly postfixual, but a few are prefixual. Postfixual *ia* appears to be transitive.

Prefixual *inga-*, *in-*, *ng-*, is intensive, and hence complexive. The postfixual *ni* appears to have the same force. It is some-

* 1st Kongo, Danakil, Berb. Sem. *i*; 2d Mpongwe, Kongo *o*, *u*; 3d Kongo, Yebu *o*. In Caucasian the same series is found. Awar, 1st *d-i-z*, 2d *d-u-z*, 3d *d-o-s*.

† In Galla *-n* is the common agentive postfix of nouns. I have no doubt it is the Assyro-Berber possessive, for the postfixed agentive pronouns are also radically possessive.

times to act for another, corresponding with the Zimbian "relative" postfix (e-la, e, i). *Di* appears to be another form of the same particle, and when combined with it in the forms *indi*, *ndi*, *dini* &c. to be intensive, and hence causative, reciprocal &c. It may glossarially correspond with the common Semitico-African reciprocal *na* &c. The postfix *-dga* imparts an adtransitive action (i. e. action towards or for the subject &c) and is identical with the Galla d'a. Kos "to descend," *kosdga* "to descend towards us," *korani* "to steal for another," *koradga* "to procure by stealing."

What varieties of structure the other Nubian languages may possess is not known. The Koldagi of Kordofan is consonantal like the adjacent Tumali. In the north the Kensy appears to be still more consonantal, while the Nouba and Dongolawi are vocalic.

Notwithstanding the strong affinities of Tumali to the Northern and Southern African languages, it must, when taken as a whole, be considered as representing a distinct Africo-Semitic sub-formation. It cannot be subordinated to the Berber, Egyptian, Hottentot or Zimbian. It is deficient in some of those traits that connect the Hottentot, Hausa, Berber, Egyptian and Semitic, and in departing from them it does not unite with the Zimbian. Its pronominal system is not that which prevails in all the Semitico-Libyan languages as well as in the Galla, but appears to be a variety of the Zimbian. The *i* of the 1st pronoun is found as a postfix in Semitic, but it is also found separately in Loango. The *o* and *u* of the 2nd and 3rd are not Semitic, but Zimbian and Caucasian. In other respects also there are decided departures from Semitico-Berber. The pronouns are never postfixed to the root to mark tense, and there are no internal formative flexions of a true Semitic character. But it may be remarked that the Semitico-Berber formation, in the stage that preceded these flexions, must have been agglutinative and elliptic like the Tumali. If we consider the Semitic basis as monosyllabic, and the formative flexions as having been produced by the euphonic coalescence and contraction of generic serviles, its normal structural character is entirely Tumali. This language, therefore, carries us back to the proto-Semitic era of the Semitic formation, if we may so speak, when it had a common phonetic character with the Tumali on the one side, and the Caucasian on the other.

Semitic, Nubian and Zimbian are all intimately connected, both rudimentally and in development, and widely as the first and third deviate from each other, the narrow Caucasian alliance is related to all the three. The explanation must be historical. The Zimbian formation is more rich and pleonastic, and more broadly reflects the great harmonic, agglomerative and agglutinative development that influenced the more exposed formations of the Old World and spread into the New, in what may be termed the Euskaro-American era. Some of the Caucaso-Semitic languages appear to have resisted its influence more than others, and become elliptic, agglutinative and flexional. This modified type at a later epoch became predominant in S. W. Asia, and to it we must refer the prevalent Caucasian, Semitic and Nubian. As they now present themselves, they appear to be referable to the long predominance of a common influential development operating synchronously on different portions of the same linguistic region. Semitic is not the mere offspring of a Caucasian language, nor is Nubian a similar derivative either from Semitic or Caucasian. Still less can Zimbian be derived from either of the existing northern types of Africa. These formations appear as the modified remnants of a succession of great developments that took place in S. W. Asia and extended into Africa. Their relative antiquity cannot be determined, because the epoch of the origin of a composite linguistic type and that of its extension and predominance have no necessary connection. Thus formations similar to Circassian, and to Semitic in its agglutinative or pre-flexional stage, may have grown up in some portions of the Caucaso-Semitic province and been long confined to them, while formations of a Zimbian type may have been developed in other portions of the Caucasian province and the Euphrates basin, and become diffusive. In like manner agglutinative types may have afterwards prevailed in some parts of the region and predominated from the Caucasus to Nubia, while the proper Shemo-Hamitic mother tribe and language were still confined to a comparatively sequestered land, and had not yet possessed themselves of the great ethnic highways of S. W. Asia and Northern Africa. What we positively know is that the crude, decaying and flexional Semitic type has predominated in the historical time, and that the Caucasian languages, particularly the

Georgian, preserve evidence of the existence in the same province of agglutinative and harmonic formations, which have also become impoverished. On comparing these S. W. Asian types with the African, it may be inferred that the richer and less disorganized type represented by Zimbrian, with its striking Georgian and American affinities, had a wide predominance long before the Caucaso-Nubian type became a prevalent one. As the proper Semitic appears as a late and flexional form of one of the cruder Caucaso-Nubian languages, with an archaic Semitico-African basis, it must be considered as comparatively modern. The intimate mutual connections, aboriginal and historical, of the various systems that have predominated in the Caucaso-African region, are attributable to the ethnic dependence of Africa on the narrow Caucaso-Semitic province, and to the position of the latter with reference to the Aso-European continent. Whatever ancient linguistic type is found in Africa must have previously been that of a predominant formation in S. W. Asia, which, in its era, affected all other formations of that province. In all eras the predominant Scythic formation must have influenced S. W. Asia.

The distinctive traits of the Nigerian languages, when compared with Zimbrian and Assyro-Berber, appear to have a decided Tumali character. Most of them exhibit, in various degrees, a weak agglutinative and elliptic power, producing curt forms of particles and combinations of particles. This tendency may be directly referred to the influence of an ancient S. W. Nilotic formation, succeeding to the cruder Egyptian type, and probably to later and more Zimbrian languages, and now represented by the Tumali, and, it may be presumed, by some other tongues of the upper Nile basin.

2. EAST NILOTIC OR GALLA.

For the pre-Himyaritic languages between the White Nile and the Red Sea no grammatical data have been published, so far as I am aware. But when we consider the evident antiquity of the Nubian formation as represented by the Tumali, the distance to which its influence may be traced on the westward into the basin of the Niger, and its affinities not only with Galla but with an early condition of the Semitic and Caucasian developments, it is

highly improbable that the more eastern Nilotic languages, such as those of Senaar [Shilluk &c,] the Fazoglo (Quamamyl,) the Shankala (of Agaumider)—the Gonga group, the Kuafi and Masai, the Agau group, the Takue and the Dalla (the so called Shiangalla of the Tacazze), the Danakil, and the Saumali-Galla group, will prove to belong to essentially different formations. The better known Abyssinian languages appear to be Himyaritic modified by ancient Abyssinian*; so that it is at present hardly safe to infer any of the characteristics of the latter from Amharic, which exhibits some points of agreement with Tumali where it departs from the Northern Arabic. But until the Gara and Mahrāh of Southern Arabia, or the Himyaritic itself, are better known, it cannot be ascertained whether this agreement is referable to the influence of the ancient Nubian formation or not. The Gonga languages appear to be native not only in the upper basin of the Abai, but in that of the Juba. They complete the cluster of upper Nilotic languages, around and amongst which the Galla sub formation is spread out.

Some writers have been disposed to refer the Galla formation to an unknown central region, but without sufficient grounds. That its inner boundary is unascertained is involved in the general fact that the interior of South Africa is unknown. It has, from time immemorial, been the formation of the coast of the great eastern promontory of Africa, (Dankali-Saumali), a circumstance which gives much more importance to it than the fact of its extending to the Galla hordes of the interior, for this promontory from the earliest ages of the navigation of the Red and Arabian seas, must have been the chief ethnic link between S. W. Asia and all Africa south of the Sahara. In this respect its ethnic importance is only second to that of the Egyptian, and as the historical Egyptians never gave rise to a great diffusive African race, and their direct influence does not appear to have extended even to the upper extremity of the Nilotic basin, it may be said with truth that the African people in occupation of the southwest coast of the Red Sea, and the adjacent coast to the southward, held a more important ethnic position with rela-

* To this class (Ethiopic) belong the old Ethiopic or Gheez of Tigre, the modern Tigre, the Arkiko, Amlhara, Argobba, Harragie, Hurrur or Adhari, Guragie and Gafat.

tion to Africa generally than the Egyptians themselves. Until it can be shewn that the Galla formation is an intrusive one in this district, we must consider it as aboriginal in the usual ethnic sense. While its position seaward exposed it to the influence of the nations which successively predominated in South Arabia, and, in maritime ages, of those also which navigated the coasts of Persia and India, its landward relations were not less important. The Galla province is interposed between the proper Nilotic and the Zimbian and if it does not directly touch the Middle languages north of the great range,—which it probably does—it is connected with them by its relation to the northern Nilotic languages. With the latter it forms the eastern extremity of the linguistic belt that stretches across the continent from Cape Guardafui to Cape Verde. In this respect the position of the Galla group is somewhat similar to that of the languages of the Niger. Both occupy the extremities of the dividing range that separates the Southern from the Middle languages. But the Galla, from the predominance and great extension of the tribes which speak it, presents much longer lines of contact with the other Nilotic and with the Zimbian formations than any of the western languages do with the latter and the Sudanian. Its geographical relation to the Zimbian is remarkable. There is no natural boundary between them, as there is, to some extent, with the Abyssinnian tribes, and the universal diffusion of the Zimbian race over all the coast to the south of the Equator renders the abrupt break of the formation on the N. E. the more remarkable. The partial extension of the Zimbians (Suaheli) along the Galla coast to Socotra, the subjection of the most northerly Zimbian tribe of the mainland, the *Wa-Pokoma*, to the Galla, and the intrusion of the Zimbian *Wa-Kambas* between the Orma and the Kuafi, increase the interest of the questions raised by the relation of the two formations. The main question is this. Do the Afar-Galla languages represent a formation distinct from the Nubian and Zimbian, or is the formation a mixed one, Zimbian modified by Nilotic or *vice versa*? The Galla grammar of Dr L. Tutschek enables us to make some approach to a solution.

The Galla province is considered by Prichard as embracing the Shiho or Hazorta, the Afar or Danakil (and Adaiel), the

Saumali and the Orma (commonly called Galla). Dr Krapf has included the Kuafi and Masai (? Sai) in the same family. The Kuafi tribe are located far inland and southward around the snowy mountain of Kilimanjaro, and the Masai appear to be still further to the southward. They are apparently surrounded by Zimbrian tribes, and the most important of the N.E. inland tribes of that family, the *Wa-Kamba*, separate them on the north from the Orma. From the evidence of a short vocabulary communicated by Krapf to Ewald (*Zeitschrift d. Deutschen Morgenl. gesellsch.* i, 55) I infer that the Kuafi at least must be referred to the larger E. Nilotic alliance, as the glossarial affinities are chiefly with Agau. Their ancient connection with the E. Nilotic province is further shown by their possession of some peculiar Himyaritic words.* The Danakil also, although having special Galla affinities, appears to be properly referable to the same general alliance, as a large proportion of its glossarial affinities are also with Agau and Gongga dialects†. The Shiho, Danakil and Saumali have a proportion of curt consonantal words similar to the Bishari, Egyptian and Berber, and this probably indicates the original character of the phonology. Danakil postfixes *-ta* to several words, as in Semitic, Egyptian, Berber and several Mid-African tongues, the same definitive being prefixed in Bishari (*to ta, te*) as in Berber and Emghedesi. A few have the postfix *ba, b*. The Orman or Galla has a less antique and peculiar

* A-Kuafi has some peculiar glossarial affinities with the pre-Arabic or Himyaritic class of South Arabian languages, e. g. "Blood," sarge, Mahrah, Gara zor; "Bone" luito, Gara alat, Mahr. silathir, (Arabic alam). The following words from von Ewald's short list are Agau.

Sun, engolo; Agau kora.

Moon, laba; Ag. arba, arfa, Eth. worhi, Malag. vulana, Danak bera.

Star, lua-kiri; Ag tsega-loa.

Stone, soiri; Gongga sucho.

Tree, endsheda; Agau satsi.

Fire, engima, Agau ankuini "hot."

Nose, mangia, engume, Agau kumba.

Ear, engioko; Agau anko, ankwagi.

Mother, yevu, Shangala uju.

Brother enganashe; Gongga isha. A few of the other words in the vocabulary are Zimbrian. In common with Galla it has the Zimbrian vocalic phonology. The prefix *en* corresponds with the Agan *an-* and the Galla postfix *in, n, &c.*

The numerals are

1. o-bo. Nilotic, Nigerian; no-*f* Egypt., wo-*to* Kaylee, bo Binin &c.

2. ari. Koldagi ora, Tumali ar-*k*, Tembu no-*ali*, Woloff ni-ar.

3. oku-ni. Shang. u-ka-g, Hausa o-ku, Bornu wu-ku.

4. o-to-ni. Gong. o-ita, Hausa fu-du, o-du &c.

† (☞ For this note see next page.)

form than Tumali, because a larger proportion of its traits are common to it with Semitico-Libyan or with Zimbrian. Like the latter it is vocalic and harmonic, but its agglomerative power is weak and compounds are rare. Gender is not so regularly discriminated in substantives as in Hottentot and Hausa,—Galla in this respect resembling the majority of the Semitico-Libyan languages. As in Semitico-Libyan all nouns are masculine or feminine and collectives are considered as feminine. Hence the plural affixes are little used, most nouns being naturally collective. Nouns made plural by a postfixed particle are almost invariably considered as fem. and govern the verb in the fem. *singular*, an idiom that has a parallel in Arabic as Dr. Tutschek has remarked. Qualitives take the gender and number of the substantive to which they are postplaced. The fem. postfix is the Semitico-Libyan *t* (*-ti, -tu*) or *o* (corresponding probably with the Hausa *a*). There are concreted agentive postfixes. A common one is the Semitico-Libyan *-n*, the corresponding objective being *e, i, o* or *u*. The objective in *a* has sometimes *-n* in the agentive but in other words *-i* corresponding probably with the Hausa *-i* fem. and also sometimes masc. The compound objectives ending in *-a* (*i-za, a-wa* &c.) have *-fni* as agentive. The dative takes *-ti* a particle of place, the ablative *ira*, "of"; *-heza* "out of", "from"; *-ni, -n* "through, by, with &c."

The pronominal system is mainly Semitico-Libyan in form and glossary. It has the masculine and feminine definitives of that

5. him-ieti. Semitic in the first term, Nigerian &c in the second. (See 8).

6. ille. Galla l'eh, Dalla er-de.

7. nabi-shana. Shana is Galla, Zimbrian &c 5, and bi is a root for 2 in Zimbrian, Nigerian &c

8. is-ieti (5, 3). Karaba iti-ita (5, 3), Moko ite-iata (*ib.*) The is, it of 5 is preserved in the ieti of the Kuafi 5. So lbo ise 5, as-atu 8.

9. sal. Galla sagal.

10. tomon. Bishari tumun, Galla fam. tema, tuma &c, Gongga tama, Serakoli &c The Danakil pronouns have some peculiarities. "I", enu, is Galla, Amharic &c: In the plural the pl. def. *n* is *prefixed*, nenu. "Thou" is io, evidently a contracted form. [Comp. the Emghedesi and Malagasy kia]. The possessive, ku, is Galla, Semitic. The plural atu is not Galla. The 3d person postfixes *k* in the masc. form, usuk, (fem. isa, the Galla and Hausa masc.). Galla has also *k* masc. in *kuni* this (fem. tuni), Berb. tina, masc. wina. The plural *postfixes* *n* as in Galla, Semitic &c.

The following words, from Salt's vocabulary, are Abyssinian and not Galla: Rain robe, Gongga; Mountain ala, Agau; Iron birta, Gongga, Agau; Butter, suba Agau (milk); Milk is Galla anan Galla, anub Danak; Head amo, Gafat; Hair dogur-ta, Gafat, Tigre; Eye inte Agau, Tigre; Nose, sana, Agau; Mouth afa, Agau, Tigre; Ear, aite, Gongga; Hand guba Gongga (*kusha*). Body gelub Agau (kel.) Several of these terms are also Semitic.

formation in the 3rd person, but not in the 2d. The pronouns are also postfixed to words possessively and assertively, in contracted forms, in the 2d person and in the feminine form of the 3d; the 1st and the masc. 3d taking merely the tense assertives, save in the future which inserts the 1st pronoun in a curt form. The 1st and 2d pronouns have distinct and probably archaic possessive forms (*ko*, *he*,) which are postfixed. But that they are Semitico-Libyan as well as the separate forms is proved by Egyptian, Berber, Hebrew, Himyaritic, Amharic and (in the 2nd person) by Hausa. The formatives are postfixed (Zimbiam, Tumali, Hausa &c) and similar in their powers to those of other Africo-Semitic languages, and any word may receive them. They are reduplicated and compounded as in Zimbiam, and the principal one is Zimbiam glossarially. The assertive of the present is *o*, and that of the past *e*, which are both Zimbiam. In Galla the same form may, in general, be used as an assertive and as a substantive, but some change the assertive *a* to *o* (Zimbiam) or *tu* (Semitico-Libyan) both postfixes being feminine definitives. Galla like Tumali is decidedly postpositional and inersive. The directives and formatives are postfixed, the qualitative precedes the substantive and the object precedes the verb.*

* The plural varies as in several Mid-African languages (Tumali, Hausa, Fulah Emghedesi). But *o-da* is the usual postfix. It corresponds with the Hottentot *-da*, *-na*, the Emghedesi *-du*, *-ru*, the Mandingo *-lu*, the Bornui pronominal *-ndi*, the Berber *er*, the Malagasy *re*, *ru*.

The formatives are -d'a [*d'* is a guttural dental] active for one's self (Tumali *dya*) and *za* [Zimbiam], *ja* intensive, causative, transitive &c.; *ja* has the same power as *za* and appears to be merely a euphonic substitute for it. The *e* are variously compounded. The reduplication of the root or its first syllable is frequentative or intensive. *-ma* following the active formatives is passive; *-o-ma* with qualitives is inchoative. *Iu* or *ini-* is an active prefix, corresponding probably with the Tumali *-ini*.

The following table will show the forms of the pronouns and their combination with roots and assertive particles:—

Sing.	Obj.	Ag.	Pres.	1st Pret.	2nd Pret.	Fut.
1	na, ko,	ani	adem- <i>a</i>	- <i>e</i>	e- <i>ra</i>	ufandyi-r-a
2	zi, ke	ati	adem- <i>t-a</i>	<i>t-e</i>	<i>te-r-ta</i>	r- <i>ta</i>
3	iza, za	ini m.	adem- <i>a</i>	- <i>e</i>	e- <i>ra</i>	r- <i>a</i>
	i-i, zi	izin f.	adem- <i>ti</i>	<i>t-e</i>	<i>te-r-ti</i>	r- <i>ti</i>
Pl.						
		unu }				
1	ke-nya	nu }	adema- <i>na</i>	- <i>ne</i>	ne- <i>rra</i>	rra
2	kazani	izin	adem- <i>tul</i>	- <i>ta-ni</i>	<i>ta-ni-r-tu</i>	r- <i>tu</i>
3	zani	iz-an	adem- <i>ut</i>	a- <i>ni</i>	a- <i>ni-r-u</i>	r- <i>u</i>

The present *-a* and past *-e* are Zimbiam. The perfect *ra* (Tumali *ir* Zimbiam-*ri*), *-il*, appears to be a contraction of *dyira* an absolute assertive which is also in use (adome *dyra*, ademte *dyra* &c). It will be remarked that both the root and the auxiliary take the pronominal postfixes.

As the Galla and Egyptian formations approach each other, face the Semitic, and occupy the two ends of the Red Sea where the Semitic area is nearest the African, it may be assumed that the Semitic traits of the Galla, such as the non-agglomerative phonology, the masc. and fem. forms of nouns, and the pronominal system with its masculine, feminine, assertive and possessive forms, belong to the basis of the language, and that this was of an Egypto-Hottentot character. The absence of the more flexional traits of the Semitic, Nubian and Zimbian formations appears to denote in it a more crude and less agglutinated form than the first and second, and a less elaborate formative and definitive system than that of the third. If it had originally belonged to the Zimbian formation, it is not probable that those distinctive characteristics which are preserved alike in Suaheli, Sechuana and Mpongwe would have been lost in a dialect conterminous with the first. The Tumali and several of the Nigerian languages show a greater disposition to the alliterative or pleonastic reflection of definitives than Galla. The inversive tendency is common to it with Ethiopic, Nubian and Nigritian languages, and, along with many other facts, shows the influence of a diffusive formation that affected most of the Middle languages, and particularly the eastern ones. If Galla is correctly described as being normally one of the more crude members of the archaic Semitico-Nilotic alliance, its special Zimbian characters, that is those which distinguish it from the adjacent Nilotic languages, must be attributed to the Zimbian formation having, at one period, been present and influential in the Nilotic province.

Whatever may be the exact history of the recent migrations and conquests of the Orma, it is evident that the linguistic formation is amongst the most ancient in the eastern division of Mid-Africa. The glossarial affinities of all the known languages and dialects, from the Danakil and Saumali on the Red Sea and Indian Ocean, to the Orman of the interior, are mainly with Mid-African tongues, and particularly with the central ones, such as Hausa. But they are also connected with the more westerly, not only by structure but, to some extent, by glossary. Their special affinities with Malagasy tend to prove that the formation was a very archaic and influential one at and near the mouth of the Red Sea

before the Himyaritic began to prevail, and probably also long before tribes of the Zimbrian family became active and influential as navigators.* The pronouns, formatives and other particles which are common to the Galla and Egyptian languages with Malagasy, must have been carried to Madagascar by one of the oldest navigating races of eastern Africa, a race that probably occupied the coast and islands as far south as the Suaheli now do †

The Bishari language is interposed between the Coptic and the Danakil. It has affinities with both and evidently belongs to the same alliance. This renders the higher agglutinative and flexional power of the Nubian and Berber the more remarkable, as it thus appears that the comparatively crude Egypto-Galla alliance has immemorially occupied the whole coast of the Red Sea. At the same time Bishari has some specific Berber affinities. Thus it has the Berber *prefixes* *te, ta, to* &c. and *wo, o,* &c. (Coptic *t-, d-* fem. *p-, b-* masc.) The historical derivation of the lower Nubians, or Barabra, from Kordofan (Prichard) explains away this geographical anomaly, as it tends to shew that the lower Nilotic basin was long exclusively occupied by tribes speaking languages of the cruder class. It thus renders the contrast between the upper and lower Nilotic provinces more complete, and, by confining the Nubian to the former, narrows the enquiry into its probable origin, or primary affinities. Its peculiarities, when compared with the Egypto-Galla alliance, must connect it with the Semitic province through Abyssinia, or with the Berber. The structure of the Bergu and Tibbo may be found to throw some light on the ethnic history of the Nubian. At present the inverse tendency common to it with the Galla and probably the Abyss-

* There have evidently been constant oscillations and repeated revolutions in the distribution and relative power of the East Nilotic races. The partially Zimbrian character not only of the Galla but of the other Nilotic languages must have been mainly acquired during an era when a Zimbrian race predominated in the Nilotic province, and that its predominance was at one time maritime also is proved by Malagasy. The Galla appears to have become influential in a later era, probably not only after it was Zimbrianised but after the race was modified by intercourse with a Semitic or proto-Semitic people. The Galla maritime power appears to have afterwards declined. What may be termed the modern Zimbrian has evidently advanced into the ancient Galla maritime region and it probably predominated when the Himyarites began to eclipse their navigating African neighbours.

† The Galla term for God (also Sky) *Wak* or *Waka*, which appears to have no affinities with Zimbrian or even with Nubian languages, was probably originally the name of the Sun (*woka*, Shangalla, *wah'* Dalla; *bak*, *baak* &c. Lesgian. So in Dravirian *paka-lon*; Australian, *baga-rin*; Slavonian, *bog*). In Malagasy it is "sky" *ha-baka-baka*.

sinian languages on the one side, and most of the Nigritian on the other, is a strong fact in favour of a direct connection by the Red Sea with an inversive Asiatic formation.

For the other non-Semitised tongues of Abyssinnia and of the eastern branch of the Nile I have no grammatical data. Whatever may be their various structures, the vocabularies contain evidence that at some period, most of these languages were deeply affected by one of the most influential formations of Mid-Africa. The postfix *ka, ga, ta, da* is found in the Nubian vocabularies as in the Himyaritic, Amharic, Afar-Galla (*ta, da, te* &c) and the Fulah, Susu &c. In Koldagi, as in Woloff and Mandingo, *r, l*, (Arabic pref. *al*) also occurs, and it appears to be combined with *k* in Kensy (e. g. "Dog," *mo-ka* Noub, *mon-ka* Dongol, *ba-al* Kold. *we-lk* Kensy). Dalla postfixes *ta, da*, probably variations of the same common definitive which is *ta* in Danakil &c and *ka* in Nouba &c. It has also *la, na* which may be variations of *da* but are more probably the Semitico-African *na*. Galla and Agau have *n* postfixed. In Kuafi it is prefixual, and in Agau also it occurs as a prefix. The Egypto-Hottentot labial definitive is found in Bishari (*wo, o* prefixed), Danakil (*ba, be, b* postf.) Agau (*wa, ua* postf.) Gonga (*bo, o* postf.), and Shankala (*ma, ba* postf.) as in Bornui (*-ma*). Shankala also postfixes *sa, za, cha, a*. The same sibilant postfix is found in one of the Gonga languages (Woratta) and occasionally in Galla. It is the common definitive and 3rd pronoun. The Gafat *-ish* appears to be a consonantal form of it. Galla and Agau postfix *-i* as in Hausa, and Danakil prefixes *e*.

The Agau pronouns belong to the Semitico-Libyan formation, and closely resemble the Galla. The Agau of Agaumider prefixes the possessive forms of its pronouns as in Zimbian. 1st an *sep.*, *ye- pref.* (*ey-, y- &c* Berber, *e-* Semitic Aorist). 2nd *-anti sep.*, *k- pref.* (*ek- obj.* Berb., *ka-, ek-* Semitic). 3rd *ngi, sep.*, *ng- pref.* (the *n* of other Semitico-African languages).

The Gonga pronouns are peculiar. 1st *ta*, 2nd *ne* (Kuafi *ini*), 3rd *bi* (*bo pl.*). They have Hottentot, Zimbian and Malagasy affinities. 1st, Hott. *te-re* masc., *te-ta* fem.; Zimbian *ti, tu* plural. 2nd, Malag. *nao*, Fanti *ano*, Zimbian *nĩ-na*, *pl. nui, ni &c.** The

* Emghedesi, which preserves forms similar to Malagasy, has *ne* as a root for the 2nd pronoun, identical with Gonga.

3rd pronoun is found in Angola vi-na "he," and in Loango ba "they" corresponding with the Gonga bo. The broad vowel of this plural is common to Semitic, Hottentot and Zimbian. It appears also in no "we," and itoch "you." Neither of these forms is derived from the singular, and both are Semitico-Libyan or Egypto-Galla. Comp. 1st nu, no &c Coptic, Egyptian, 2nd n-tok Coptic sing. They are connected with Agau forms e-nu "we," en-tu "you," en-tok "your" kit "thou" (for tik, Galla a-ti Ar. fem. an-ti), kit-en "you." From this it appears probable that the Gonga languages, if originally Abyssinian, have been affected by Zimbian like Galla and Kuafi. The non-Semitic numerals of the Nilotic and Afar-Galla languages have strong affinities with those of the central and Western provinces of Mid-Africa. Pronouns, particles and miscellaneous words also exhibit similar evidence.*

So far as the present data go, they tend to shew that the most influential movements of existing races, from the basin of the Nile westward, were those of the Nubian or W. Nilotic tribes, who have affected the languages of the Guinea negroes, and whose movements are still in operation, if the Fulah are amongst the more western derivative or Nubioid races, as appears to be probable from linguistic and physical evidence. The special Afar-Galla influences, which are probably more ancient, are chiefly to be found in the central or Sudanian province. To the westward they are less powerful than the Nubian.

* Examples will be found in another paper. At present I shall merely compare the short Nuba and West African vocabularies in Prichard. "Sun", Nubian languages, *es*, *masi-ik*, *masha-ka*, *Susu su-ge* (*ma* is probably prefixual as in Galla &c); "Moon", Nub. *nun-do*, *nor-ga*, *nu-gy*, *una-te-ga* (a double postfix) Emghedesie *han-du*, Ibo *ona*, Binin *ngun*, Fulah *liulu*; "Star" N. *on-du* (Koldagi), Mandingo *lolo*, Ibo *ku-on-di* &c, (the same root as moon); "Star", N. *wus-ik*, the root is used for "Stars" and "Moon," Papa *sung-vi*, *sung*, Ashanti *su-rua*, *obo-sumi* &c; Agau, *gar-wa*, Bishari *gal-tuk*, Takue *grua*, Galla *orma*, *nama*, Adaiel *adma*; "Man", Koldagi *hor-du*, Fulah *ger-ko*, w. Sudan *har*; "Man", N. *oge-dj*, *it-ga*, Mandingo *ke*, *Susu*, *ke-me*, Sudan *oko-na*, *ka* &c.; "Woman", Shank. *unga-fa*, Agau *huna* &c N. *ing*, *id-en-ga*, *id-ing-ga* (*id* is "man"), Comp. "Mother" Tigre *ane*, Gonga *into*, Fulah *ina*, *inta oni*, Moko *eni*, Bornu *yang*; "Woman", Koldagi *ea-du* Hausa *ua-ta* (Mother); "Child", Shank. *dida* ("boy"), N. *tota*, *tot*, *tondu*, Bornu *ta-ta*, Fulah *enta-do*. "Head" Agau *aur*, N. *oar*, *or-k*, *ur-ka*, Fulah *hor-de*, *hor-e*, Yoruba *ori*, *eri*; "Fire" Gonga *gea*, *kako*, N. *e-ka*, *y-k*, *ii-ka*, *i-k*, Fulah *i-i-ta*, Hausa *u-ta*. That is, all the Nubian words have western affinities and especially with Fulah. On the other hand, a comparison of Prichard's Galla words with the Nubian shews hardly any affinities, although the number of words for comparison is considerably greater. The Lower Nigerian and the Negro vocabularies of the coast (Ibo &c.) have striking affinities with the Nubian languages, and particularly with the Koldagi.

7. MALAGASY.*

Distinctive character. Great power of combining its formative prefixes.

General characters. In its vocalic, sonant, aspirate and harmonic phonology, its double consonants (*mb, mp, nh, nd, nj, tr, dr, ndr, nr, ts, nts, tz*), its agglomerative† and partially agglutinative tendency, its glossarial structure, its direct collocation, and the general character of its ideologic basis, Malagasy is Zimbian. But it has special affinities with the Semitic and Galla formations, and it wants some of the distinctive traits of Zimbian and the other Semitico-African formations. It must therefore be considered as a distinct formation, belonging to the same alliance. While its phonology is almost identical with the Zimbian, and it has numerous fundamental affinities with that formation in ideology and glossary, its pronouns and definitives are not reflected in words of quality and action. Its formative system,—although entirely Africo-Semitic in character, and, like its pronouns and other particles, exhibiting decided Africo-Semetic glossarial affinities,—is distinguished from the others by its multiplex combinations. Zimbian has the same method, but it appears not to carry its agglomeration so far. In the combinations of roots, and of roots with particles, to form new words and modifications of words, in the power of treating these polysyllabic combinations as new stems, and in the euphonic unity given to all compounds by the accent and by permutations and elisions, there is no difference between the two systems. The decided prefixual and prepositional character of Malagasy and its use of definitive prefixes both with proper names and appellatives are in accordance with the oldest Semitico-African collocation, that which still predominates in the Semitic group, the allied N. African languages, Coptic and, to a large extent, in

* J. I. Freeman, "A Dictionary of the Malagasy language"; Ib. Grammatical Notices in the Appendix to Ellis's History of Madagascar vol. i.; M. S. S. vocabularies, grammatical notes, sentences &c. from native Malagasy.—(J. R. L.) [In correcting the proof sheets, I have been enabled to refer also to the grammatical notices by Chapelier, prefixed to D'Urville's Vocabulary, "Voyage de l'Astrolabe."]

† Malagasy abounds in compound, descriptive and metaphorical words similar to the Zimbian. The names of places are generally descriptive, and the vocabulary supplies us with such words as *fiaronamboalahiantitra* "bluster," (*fiaro*, "mode of defending," *amboalahy*, "dog" *antitra* "old"); *fiazanaburuna*, "oppressive" (*fia* "squeeze"; *zanaka* "young," *buruna* "bird") whence *manaofiazanaburuna*, "to oppress."

Zimbian. Its flexional and quasi-flexional traits are entirely African. In the want of intimate combination of the pronoun with words used assertively, it resembles some of the Mid-African languages. The pronoun is postfixed possessively and assertively in contracted or radical forms, as in the archaic African system. With all the other African languages—and unlike the Semitic—it uses generic assertives to denote tense.

It is impossible to decide on its precise relationship to the Zimbian family until the adjacent languages have been investigated. One of these, the *Makua*, of which I have partially examined the structure and obtained a considerable vocabulary, shews special affinities. It is clear, however, that Malagasy is not a mere dialect of the Zimbian formation, as every known tongue of South Africa, with the exception of the Galla and Hottentot, may be considered to be, in ideology as well as phonology. Malagasy can only be regarded as such a dialect in respect of its phonology and some of its leading ideologic tendencies. Its pronouns and formatives are not distinctively Zimbian. Neither can it be considered as merely a Semitic, an Assyro-Berber or a Nubian dialect. In its general external form it is Zimbian, but it has radical and marked affinities with the Egypto-Galla and Semitic sub-formations which are not shared by the Zimbian. These affinities are of such a nature as to render it probable that its basis was akin to that of the Egyptian, the allied crude Mid-African languages and the Hottentot; and that it was, therefore, more Semitic at one stage of its history than it is now. The loss of some of the Semitico-Libyan traits, the preservation of the ancient collocation as seen in the prefixing of formatives, and the total change in the phonology may be attributed to one cause, the gradual transformation of its population by the influx of settlers from the dominant maritime tribes of Eastern Africa. A great migration of colonists from the opposite coast, seizing upon a province and forming a new dominion, might have carried the South-African linguistic formation in all its integrity into Madagascar, as the Himyarites appear to have carried theirs into Abyssinia. The actual condition of the language of Madagascar shews that no successful expedition of the kind ever took place, or, at all events, not on a scale sufficiently great to preserve the foreign language and assimilate the native one

to it. The correct view of the facts appears to be, that Madagascar, at the earliest period when boats existed on the African coast, received population and language from that source, that its primitive African linguistic basis has never been obliterated, and that both its population and language have received modifications from the influence of every race and formation that has predominated in Eastern Africa. The Comoro Islands and the northern part of Madagascar being within the limits of the monsoons, have been included, from time immemorial, in the regular range of Arab navigation along the eastern coast of Africa, and the Sakalavas of Madagascar and the Suaheli of Africa are as much at home in the Mozambique channel as the Indonesians are in the Java sea, or the Tongan Islanders in that between their Archipelago and the Vitian.*

Glossarially, Malagasy belongs to the Nilotic formation and not to the Zimbian. It preserves the archaic crude basis of the Semitico-Libyan languages and has received little from Zimbian save its harmonic and agglomerative phonology. The definitives have the common Semitico-African characters and not the peculiar ones of Zimbian. In one respect the system is Zimbian rather than Semitico-Hottentot, for, in its existing form, it does not distinguish masculine from feminine. But, as we have seen, this distinction is not regularly and consistently maintained in the definitives of Semitic or any of the African languages which possess it. The Malagasy definitives distinguish persons or rational beings from other substantives, a distinction somewhat analogous to the Zimbian.

* See the remarks on the Himyaritic and pre-Semitic navigation East of the coast of Africa from the Red Sea to Madagascar, in the introductory paper of the present series (*Journal Ind. Arch.* iv, 326). The Revd. Mr Krapf has since remarked, in the preface to his "Outlines of the Elements of the *Ki-Suaheli* language" that "up to this period native boats come from the various ports of the Red Sea to the Suaheli coast, and proceed even so far as to Ma-ambik and Madagascar, to change their goods. And there is no doubt that in ancient times the intercourse between the Red Sea, India and South East-Africa was more frequent and vigorous, as Africa was then in this quarter not so much distracted and infested, and consequently a greater amount of wealth must have been accumulated on this coast, which attracted the traders of Arabia and India. The gold of Sofala was certainly not unknown to those traders, whose boats could sail as far as to that coast, while navigation south from the Kilimanjaro river down to the Cape of Good Hope was scarcely practicable, at least very tedious and dangerous from the strength and instability of the winds, which is not the case between Arabia and Madagascar where the Monsoons are as regular as the navigator can wish for." The Malagasy are African in person and mind, in institutions, customs, arts, religion, habits and manners. (*See Journ. Ind. Arch.* iv, 328 &c.)

The common definitive is *ny* (= *ni*) the widely prevalent Asiatic nasal definitive, *separate*, prefixed or postfixed. In Africa it is common as an archaic definitive. It occurs as such in the pronouns of both the Semitico-Libyan and Zimbian formations. It is the plural demonstrative of Egyptian (*na*) and a common Semitico-Libyan plural element. In Malagasy it is indefinite in number. The Zimbian prefix *in*, *n* &c. may correspond with it, if the former be not merely a euphonic form of *i*. *Ny* is also the relational or oblique 3rd pronoun (personal and neuter) in Malagasy (possessive, instrumental &c. but not objective). It occurs also in some of the composite demonstrative (*i-ro-ny*, *i-to-ny* "these"; *i-re-ny* "those"). The participial postfixes contain this definitive, (*i-ny*, *i-na*, *e-ny*, *e-na*, *a-na*, *a-i-na*, *vi-na*, *va-na*, *ze-na*, *za-na*, &c. &c.)

An- or (before *b*) *am-*, is the locative definitive prefix, e. g. *An-tanana-rivu*, "the-town-(of)-a-thousand." *Am-buhi-be-masu-andru* ("the-village-(of)-much-eye-(of)-day", i. e. "sun", from being little shaded by trees &c). This definitive is probably archaically identical with the preceding, and has the same African affinities. It is possible that *a* is the definitive, and *n* equally with *m* merely euphonic, both letters being interposed in Malagasy when required by euphony. The same doubt attends the common Semitico-African nasal definitive.*

The definitive in *r*, *l*, has different forms and uses. *Ra* is the usual prefix of names of persons (e. g. *Ra-dama*, *Ra-fantaka*). Euphonicly it becomes *ran*, *ram*, and in poetry frequently takes the forms *re*, *ry*, *ray*, *rey*, which, says Mr Freeman, "appear to retain simply the force of the article *ny*". From this it may be presumed that their use is not confined to proper names. If so, the definitives in *n*, *l* and *r* would appear to be variations of one root, the common Semitico-African feminine, collective and plural definitive. If *Ra* be a distinct particle it may be honorific (Egyptian *ra* "lord" from "sun"). *Le*, *re*, is an element in demonstratives and apparently with a plural force. Definitives in *l* and *r* occur in Zimbian and several of the Nigerian languages.

* The locative *an-*, *am-*, resembles the Zimbian *mu*, *mo*, *ma*, *umu*, which is much used with proper names, but also, in some languages, with names of places, particularly in those nearest to Madagascar as may be seen in any large map which embraces Madagascar as well as the opposite coast of Mozambique [Mazambi-ki].

I is a definitive which is an important element in demonstratives and is also used as a prefix to names of persons, sometimes interchangeably with *ra* (Ra-fantaka, I-fantaka). It is probably a contraction of the archaic definitive *si*, *le*, which forms the 3rd personal pronoun or its prefix, the prefix of the 1st and 2nd pronouns, and enters into demonstratives. Combined with *le* in the forms *le-hi*, *le-i*, *le-y* it is not only a demonstrative, but forms a prefix to names of persons, being sometimes commutable with *ra* (e. g. Ra-dama, Lehi-dama). In the 3rd pronoun it has the form *iz-y* (sing. and pl.), the prefix corresponding with the prefix of the 1st pron., *iz-*. In the locatives and demonstratives the other vowels, *u*, *a* and *e*, and the particle *ti*, *tsy*, also occur as definitives (remote, equivalent to "that" or "the-there," *ny* being proximate, "this," "the-here"). *I* denotes the closest degree of proximity, "this," and hence is used with the 3rd personal pronouns, (as in Susu &c.); *e* is the medial, "that"; and *a* the remote, "yon." In Tumali the functions of *e* and *i* are reversed, *re*, "this," *ri* "that". All the definitives are compounded to denote minute distinctions, and the system of demonstratives and locatives thus partakes of the same luxuriance as that of the assertive formatives. *I-u* "there," 1st degree of proximity; *e-u*, the 2nd; *a-u*, the 3rd. *Tsy* denotes a greater distance than *u*, and also combines with the other vocalic definitives to indicate 3 degrees of distance, 1st, *i-ty*, "there," "these"; 2nd *e-tsy*, "there"; 3rd *a-tsy*, "there." *Ny* and *ty* also combine with *i*, *i-ny*, "this"; *i-ty* "that". *T* with *u* (*tu*) is a more emphatic form than *ty* (= *ti*), as it implies that the thing indicated is actually pointed at, or distinguished from others. In the following compounds it will be remarked that *re* has generally a plural force,—*i-re-ny*, *i-re-tsy* "those"; *i-re-u* "those, these, this" (pointed at); *i-re-ry*, "those" (within sight, but rather more distant than *i-re-tsy*); *i-r-u-ny*, *i-t-u-ny*, *i-r-e-t-u*, "these"; *i-za-tu* "this one now addressed"; *i-tuy* "this" (pointing at); *i-re.ru-a*, *i-re-ti-ki-tra*, "those yonder;" *i-ti-ki-tra* "this" or "here in this place." *Re*, *reu*, also occurs as a plural definitive in the 2nd personal pronoun. The Tumali *re-ki*, *ri-ki* may be compared with some of these forms. The Malagasy numeral "one" is *isa*, but on the coast *irai-hia*, *rai-ki* is used. It appears to be a demonstrative, and resembles the above Tumali terms which

mean "this-one," "that one." The def. an, ar, izo, izi and ri are employed as absolute assertives.

The proper pronouns are, 1st, Sing., agentive, a-hu, after verbs, *iz-a-h-u* (*iz* the def. prefix) before verbs; possessive *ku, u*; objective *a-hy*; Pl. relative or exclusive, *iz-a-h-ay*; absolute or inclusive, *is-i-ki-a*; relative poss. *n-ay, ay*; absolute poss. *n-ts-i-ki-a*; relative objective *a-n-ay*; absolute obj. *a-n-ts-i-ki-a*. 2nd, Sing. agentive *hia-nau*; poss. *nau, au*; obj. *a-nau*; Pl. ag. *hia-na-reu*; poss. *na-reu, a-reu*; obj. *a-na-reu*. It will be remarked, that in the 1st and 2nd persons *k* and *h* are forms of the same radical consonant (the two sounds being frequently commuted in Malagasy). The roots are therefore, 1st, *ku* or *hu*; 2nd apparently *hia* or *hi*, probably *ki, hi*, but an additional root, *nau* or *na*, is postfixed in the agentive, and is alone used in all the other forms. The relative or exclusive "we" is simply the plural form of *izaho*; the absolute or inclusive combines the 1st element of this with the 2nd pronoun *hia* (*isi-kia*, 'I and thou' the person addressed). * The possessives are contracted postfixed forms as in most Aso-African formations. But *n* appears as a possessive prefix in the pl. of the 1st person. In the 2nd it may be merged in the *n* of the root. In the 3rd the def. pref. which is *iz-* in the ag. and *az-* in the obj. becomes *n-* in the poss. *n-y*. † *A* appears as a distinct objective prefix, probably identical with the demonstrative and locative *a*. In the plural of the 1st person the final *u* of *hu, ku* becomes *ay* [= *ai*]. Ag. *iz-a-hay*, Poss. *n-ay, ay*, Obj. *a-n-ay*. This form of the pl. vowel is found in Bornui.

The entire system of pronouns and demonstratives, with their combinations, has a very archaic and native character when compared with the other Africo-Semitic systems. It is not a copy of any of these, but contains the same elements and has been moulded by similar tendencies. It appears to be equally archaic with the Semitic, Galla or Hottentot, and to belong to the same crude

* The pl. *iskia* resembles the Bornui *si-ki* the sing. postf. to verbs, and the Hottentot *si-kye* pl. wasc. The Hot. forms the plural abs. by annexing the pl. postfix of the 1st pron. to the root of the 2nd pron. *sa-da*. The excl. form is the 1st pron. followed by the plur. def. *si-da*. If these resemblances indicate any affinities they belong to the most archaic stage of Semitico-Libyan, when the pronouns were combinations of current definitives and had not yet taken fixed conventional forms.

† *Ny* is identical with *ny*, the common definitive, which is thus possessive in form.

Semitico-Libyan mother formation. The distinctive root of the 1st person, *hu*, *ku*, *hy* [= *hi*], is Semitico-Libyan. It is the *ki*, *ku*, *hu*, *ti*, *tu*, of the composite agentive forms which have *a*, *an* prefixed as *iz* is in Malagasy, (e. g. *an-u-ki* Heb., *an-u-k* Eg.), and of the simple annexed forms (e. g. *hu* Babylonian, Median-Scythic, *eh* Gara, *tu* Arabic, *ku* Ethiop.). The agentive Malagasy *iz-a-hu*, corresponds with the Bab. *an-a-ku*, and the obj. *hy* with the Hebrew *ki*. The Malagasy *u* corresponds with the Arabic, Eg., Berb., Galla and Bornui *u*.* The closest Malagasy glossarial affinities of all kinds are with the Galla group, the connected East and Mid African languages on the one side, and the connected Bishari and Egyptian on the other. The Malagasy pronominal system is more directly connected with the archaic African than with the Semitic forms of the common system. The Galla possessive *ko* "my" is identical with the Malagasy possessive *ko*, *ku*.† The absence of the prefixal *n*, found in the Galla and other African agentive forms as in the Semitic, strengthens the doubt expressed in the remarks on the Semitic system as to *n* being more than a definitive in some of the pronouns, and even as to the nasal itself being more than a euphonic augment of the prefixed agentive *a*. Whether *a* be a contracted or *an-* be an aug-

* The *u* has probably the same ultimate origin in all these languages, but its immediate derivation is from *ku* in some and from *nu* in others. But in such forms as *an-a-ku* and such as *an-o-ki*, *an-u-k* [or *an-nu-k*], *a-nu* [or *an-nu*] and *nu* its presence probably indicates the primary agentive character of the compound. From the distribution of the forms in *ana*, *na* it is probable that *an-a-ku*, *an-ku* was the original form and that *an-uk*, whence *an-u*, *n-u*, was an inversion of it.

† In Malagasy *u* and *o* are the same vowel, *u* being used in the Hova dialect and *o* in the coast dialects. In the preservation of *ku* or *ko* as the possessive form of the pronoun, Galla and Malagasy are more archaic than the Semitic languages. But the latter in their preterites retain a remnant of their Galla-Malagasy stage. For example, the Ethiopic *-hu* (as in *gabbar-hu*), is the Malagasy possessive glossarially and idiomatically, and there can be no doubt that the Semitic perfect is fundamentally possessive, and preserves archaic possessive forms of the pronouns. The Semitic possessive and preterite forms of the 2nd pron. are also Malagasy. Comp. Eth. *gabbar-ha* masc., *gabbar-ki* fem. Malagasy may have had two forms *ki* fem. and *ki-a* masc., final *a* being frequently masc. in Semitico-Libyan. In Emghedesi both *ki* and *kia* are current. Hausa again has *ni-a* fem. in the 1st pron.; *ki* fem., *ka*, *kai* masc. in the 2nd; and *ta*, *tai* fem. in the 3rd. These forms have evidently become confused and conventional, but in the original system the vowels were probably fully significant. With respect to *ia* or *ya*, it may be doubted whether the *i* is to be separated from the *a*. Possibly *-ya* or *-ia* is the Semitico-Libyan masc. def. The Arabic 3rd pronoun fem. *hi-ya* (masc. *hu-wa*) has a remarkable resemblance to the Emghedesi and Malagasy *kia*, *hia*, and as the Semitico-Libyan roots of the 2nd and 3rd pronouns are the same definitive (*ante* p. 251), the resemblance is probably a real although remote glossarial one. We have already remarked that there is considerable confusion in the sexual functions of the definitives. In the Semitic aorist *ya-* (= *ia*)—in Hebrew and Gara *yi-*—is the masc. 3rd pronoun, the fem. being *ia*.

mented form, it is clear that the Malagasy *a* represents the prefixal *a-n*, *a-na* of the Semitico-Libyan system, and the postfixual *na* of the Zimbian and of the Scythico-Dravirian pronouns. The use of a supplementary or secondary definitive to mark an emphatic agentive form is common to Indo-European, Zimbian, Semitico-Libyan and Malagasy. From the sibilant and aspirate definitive being common to Indo-European and Africo-Semitic, the Malagasy secondary prefix is a variety of the same particle that occurs as the root in the Indo-European *ah-am*, *az-am*. The Malagasy *iz*, like the Indo-European *ah*, *az*, *ak* and the Semitico-Libyan *an* has acquired a pronominal force, for it represents the pronoun in the plural, *izi-kia*.

The aspirate and guttural element of the 2nd person *hi-a*, *hi-a* corresponds with the Semitico-Libyan *ti*, *ki*, &c generally feminine (*ki* f. Ar., Eth., Hausa, *ke* Galla), although its history may be different in the two systems. It occurs with the same vocalic final in Emghedesi *kia*, *ki*. In Emghedesi also *k* and *h* are commutable. The Malagasy form *ha*, *ka* (Chapelier) corresponds with the Semitic masc. form *ka*, *ta*.

The second element, *nau*, *na*, *no*, cannot be the prefixual *an* of the Semitico-Libyan full forms. Its occurrence in all the oblique Malagasy forms, and its absence in the Semitico-Libyan, lead to the belief that it is a root in Malagasy. In Emghedesi also it appears to be used as a separate root (*no*, *ne*, *ni*, *in*). Although all oblique forms are allied to the possessive and sometimes combine or incorporate its particle, or are superseded by it, it is not probable that *nau* was originally merely possessive, and then became pronominal from the elision of the guttural root. The position and form of *nau* are not favorable to such an explanation, and the previous one is the more probable. If it be a root, its affinities are with the Fanti *ano*, the Fulah *an*, the Bornui *ni*, the Kuafi *ini*, the Emghedesi and Gonga *ne*, and the plural *n* forms of Zimbian.* As the latter are connected with the Semitico-Libyan

* The Batanga *anu* "your," Fanti *ano* "thou," Fulah *an* "thou," Mpongwe *anue* "you" are forms of the Zimbian nasal 2nd pron., corresponding with the Semitic plurals in *n*, which closely resemble the Malagasy *nau*, *ano*, *anu*.

Chapelier gives for the 1st pron. sing. *zaho*, *zao*, ag. and obj. (I have heard from Malagasians *zaho* and *jaho*); ko poss. pl. *zahai*, obj. *ahai*, *zahai*, *anai*, poss. *antsika*; 2nd sing. *hano*, *ano*, *hanau*, ag. obj.; no poss.; pl. *hanareo*, *anareo*, pl. poss. *postif. hao* and *no*; 3rd sing. *isi* and *ri*, sing. poss. *an*, *ale*, *anare*, *anahe*, pl. *zareo*, *reo*, pl. poss. *anreo*, *rea*. The chief peculiarities are in the 2nd pronoun. In

plurals, all the African forms are ultimately referable to them. Hence, the Malagasy singular *hia*- or *kia*-*nau* is an archaic plural form, corresponding with forms like the Berber plural *ku-nwi*, Arab. *ko-nna*, and the system is one of the links between the Semitico-Libyan and the Zimbrian.

The plural of the Egyptian and Coptic 2nd pron. is formed by suffixing the pl. 3rd pronoun, *sen-ten*. Eg. has *en-tu-ten* and Coptic *n-to-ten*, *n-te-ten* &c. [So Heb. *at-ten*, sep. *-hen* aff, *-ten*

hano, and the form corresponds with that of the first if *h=z* (*z-aho*, *h-ano*. In conformity with *ha* for *hia*, *an-tsi-kia* becomes *an-tsi-ka*. The double vowel of *nao*, *nau* also disappears and the root takes the form *no* or with the pref., *ano* which is the Zimbrian form (Fante, Batanga, Kongo &c., *no*, *nu*). But in the pl. *o* becomes *a*, *h-a-na-re*. The Kinghedesi pl. *he-no ru* preserves the *o*, that language having also *ne*, *ni*, *in*. The forms *reo*, *za-reo* of the 3rd pron. show that in Mr Freeman's *hi-a-na-reu* of the 2nd the final *u* is not from *na-u* but the plural vowel postf. of the def. *re* or *ri*. Mr Freeman's *i-reo* "these" is a similar form. There is a peculiarity in the forms *an*, *ah*, *anare*, *anabe* which Chapelier gives for "his" &c. In another place *anabe* is given as the obj. "me." This is Mr Freeman's obj. *ahay* with the pref. *an* (? poss. as in *an-reo* "their.") *Ahe* by itself is given as "him." As this cannot be the same *ah* it is probably a dialectic form of Mr Freeman's *azy* (*h* for *z*.) M. Chapelier also gives *aze*.

From the sentences in Chapelier it appears that the curt postfixed poss. forms of the 1st and 2nd pronouns *ku*, *u*; *nau*, *au*, *no* may be used with verbs, e. g. *miteo ko ano* "love I thee" or *zaho mitea no*, "I love thee." The relative combines the ag. and poss. forms, e. g. *zaho tea ko* "I love my" or "I loving my" i. e. "I who love"; *ano tea no* "thou desire thy" "i. e. "thou who desirest" *zaha manompo nai* "we serve our" i. e. "we who serve." These forms, it will be remarked, are similar to those in which the Semitic perfect appears to have originated (*ante* p. 259.)

The numerous and inconstant elements of the Semitico-African pronominal system render the history of the changes which they have undergone in each language and formation difficult of investigation. When we approach the more archaic stages those particles that appear as pronominal roots in the later stages are often found to be accessory definitives or directives, and in the remotest era the proper pronouns cease to be distinctively personal and rank with the definitives and demonstratives. The chief difficulty with the Malagasy 2nd pron. is to reconcile the history of the first element with that of the second. *Hi* or *hia*, *ki* or *kia*, *ha*, *ka*, cannot be at once the Semitico-Libyan guttural root which is itself a variation of the dental and a mere prefix corresponding with *iz* of the 1st pron. If, as appears certain, *hi-a-nau*, *hi-a-no*, *ha-no* be a Semitico-Libyan plural form that has been transferred to the sing. *hi*, *ha*, *ki*, *ka* must have been the root. Although such a direct connection between the Malagasy and Semitico-Libyan *hi*, *ki*, *ha*, *ka*, as the root of the 2nd pron. is the most probable explanation of the affinities that have been pointed out, it must not be overlooked that the connection between the prefix *iz* of the 1st and 3rd and the root *hi* of the 2nd is also real although more remote. The Semitico-Libyan def. in *h*, *s*, *t*, *k* is that same root. It has the form *t* variable to *k*, *th*, *sh*, in the 2nd pron. and *t*, *s*, *h* in the 3rd. As a def. *t*, *s*, also takes the form *k* in Libyan languages. The Semitico-Libyan 3rd pron. in *hi* [fem., -*su* being masc.] corresponds with the Malagasy *iz*, *is*, but it also corresponds with the *ki*, *ti*, of the Semitico-Libyan and with the *hi*, *ki*, of the Malagasy 2nd pron. In the Galla 2nd and 3rd pronouns the forms in *t* and *z* interchange. 2nd *a-ti* ag., *zi* obj., *iz-in-ta-ni*, -*za-ni* pl.; 3rd *iz-a* obj. masc., *iz-i* obj. fem., *iz-in*, -*ish-i* ag. fem. The forms of the 2nd in *zi* and *za*, *ta*, correspond with the Semitic *ki*, *ka*, *ta* and with the Malagasy *ki*, *hi*, *ka*, *ha*. The form of the 3rd pron. *iz* is the same as the 2nd before the plural postf. In like manner the Malagasy *iz* of the 3rd pron. *iz-y* [= *iz-i* Galla fem.] corresponds with the pre-axial *iz*- of the 1st pron.

ib. pret.; Ar. an-t-*ona* sep. k-*onna* aff, (ho-nna 3rd pron. pl., so su-nu Bab. &c. &c.) In Coptic the 3rd pron. n-ta-u &c. takes the form nau &c. when used as an affix, and before the pronominal compounds became restricted, concreted and conventional, it must have been optional to use this form in the pl. of the 2nd pron.,— n-ta-nau, n-te-nau for n-ta-ten &c. Dialects which had pron. in the form ti [= te] as in Arabic and Hebrew might have ti-nau in the pl., and those which had si (as in Galla), or hi, hi-a, hi-ya (a variety of the same def. found in the Hebrew and Arabic 3rd pron. fem. corresponding with the Galla 2nd and 3rd pron. in si) might have hi-nau, hi-a-nau, hi-ya-nau in the plural. Hottentot has a similar augmented form in its masc. pl. kau. These double vowels appear to have been common in the ancient Libyan languages. *

The possessive prefix *n-*, is archaic Semitico-Libyan, (Bornui Hausa, Berber, Egyptian &c), Scythic &c. In Egyptian it is proposed, in Hausa and Bornui prefixed (*n-*) as in Malagasy.

The objective prefix, *a-*, is probably the same as the demonstrative prefix of the 3rd degree. It is the Semitico-Hottentot obj. (Arabic-*a*).

The plural in *re*, *reu* is Berber (*-er*), Coptic (*-aor*), Zimbabwian (*li*), and Nigerian (*ri*, *la*, *lu* &c). It corresponds with the Galla and Tumali plurals in *da*, the Bornui *-ndi*, the Emghedesi *ru*, *du*, *re*, *da*, the common Semitico-African plural in *n*, and the Egyptian separate plural definitive *na* (Copt. *ni*, *ne*).†

* Although the derivation in the text appears to me to be the true one, another suggestion is that from the analogy of the 1st pron. it is possible that in *hia-nau*, although both elements are radically definitives, *nau* is the older pronominal root and *hia* a secondary definitive prefix, which also became pronominal. The connection between the Malagasy and the Semitic systems evidently preceded the concretion of both. In Semitic the *n* or *a* definitive was appropriated as a common pronominal prefix in the singular (1st, 2nd and 3rd pronouns), and it also occurs in the plural. In Malagasy the sibilant or aspirate definitive was adopted as the pronominal agentive prefix in addition to *a* which appears without the *iz-*, *hi-* in the objective forms, 1st *iz-a-hu*, obj. *a-hy*; 2nd *hi-a-nau*, obj. *a-nau*; 3rd *iz-y* (obj. *a-z-y*). The form of *hi* would alone be an objection to this, *iz-* being identical in the 1st and 3rd pronouns. In most of the Semitico-Libyan languages the definitive *t*, *k*, *th*, *sh*, *z*, *s* was adopted as the 2nd pronoun. In Malagasy, as in several Nilotic languages, the nasal definitive may have been early adopted. However we may account for *n* as a 2nd pronoun in lieu of the more common *t*, *k*, *h*, or in addition to it, it was evidently current in the Nilotic province before the Malagasy mother-tongue was carried to Madagascar, and any explanation that is adopted must embrace not only Malagasy but Kua, Gonga, Emghedesi &c.

† Dr Barth's Emghedesi vocabularies furnish some new and striking corroborations of the Libyan affinities of Malagasy, which I have partially incorporated in the text. The anomalous final vowel of the 2nd pronoun is Emghedesi, *kia*. In

The flexional plurals in final *y* (=i) are also archaic Semitico-African, as well as Scythic and Indo-European. The Bornui *y* corresponds with the Malagasy. The Semitico-Libyan languages like Malagasy have a disposition to attenuate final vowels.

The 3rd pronouns, def. prefixes and assertives absolute in *zr* and are Semitic and Semitico-African. The form *izy*, *izi*, *iz*, *isi* &c corresponds with the Galla fem. *izi*, *zi*, "her" (agentive *izi-n*).* In Hausa *shi* is also f. In Bornui it is common as in Malagasy, and probably from a similar cause, the influence of the Zimbian formation.

After these details no doubt can remain that the Malagasy pronominal system is an archaic variety of the Semitico-Libyan, which has become disorganized by internal decay, or from the shock of an intrusive foreign system. Both causes have probably operated, and as the superinduced harmonic phonology is undoubtedly of Zimbian origin, or the offspring of the formation in which Zimbian itself originated, the confusion of the pronominal elements, with the attendant loss of the m. and f. forms, may, in part, be also attributed to its influence.

The Malagasy definitives are all Semitico-African, and their combinations have many parallels in Semitic and African languages. The affinities of *ny*, *an*, *am*, *le*, *re*, *ra* have already been adverted to. The vocalic definitives are common to the Semitico-Libyan and Zimbian systems. *I* has many functions, generally intensive. *Si*, *hi* has a similar force, and may be the full archaic form of *i* in most of its applications, although in some it appears to be a contraction of the common Aso-African possessive and relational *ni* (as in the archaic and nearly obsolete Semitic poss. postf. *i*). *E*, the demonstrative prefix of the 2nd degree, is probably a variety of *i*, or produced by a blending of it with *a*. *A* is a Semitic 3rd

Emghedesi *k* and *h* are easily commutable, as in Malagasy. Thus the definitive prefix *ka* &c. becomes *he* &c as in Malagasy, and the 2nd pronoun also changes to *h* in the plural. In Emghedesi alone of all the Libyan languages is the form *ru* found as the plural particle with pronouns, (also-*du*, corresponding with the Mandingo *-lu* and Nilotic *da*). Comp. the Emghedesi *kia* "thou," *he-no-ru* "you," with the Malagasy *lia*, *kia* "thou," *hia-na-reu* "you."

The Hausa *hi* fem., *ha*, *kai* masc. suggests that *kai* is an inversion of an original masc. form *ki-a*, and that the Emghedesi and Malagasy *kia* are also derived from a similar masc. form.

* In *izy* the proper pronoun appears to be *y*(=i), and *iz-* the ag. pref. as in *iz-a-hu* "I". In the poss. *iz-* is replaced by *n*. In the obj, the *i* of the pref. becomes *a* (*az-y*).

pronoun and common archaic definitive. *U, o*, are Semitic 3rd pronouns (from *su, so, hu, ho*). *U* was also the agentive postfix in archaic Semitic. The vocalic definitives occur in most African languages. They are substantival and assertive (tense) prefixes in Zimbian, and the Zimbian postfixes, *a* assertive, *i, o* substantival, may be connected with the Semitic directives (objective, possessive, agentive). As simple definitive or substantival prefixes, *i, e* and *o* are common to Zimbian and several of the westerly Mid-African languages, (Yoruba, Yebu, Efik, Fanti, Awekwom &c). *O* also occurs as a postfixal substantive formative in several Mid-African languages, including Galla and Gonga in the east and Mandingo in the west. The Malagasy *t* (*ti, ty, tsy, tu, tuy*) is a Semitic and African 3rd pronoun. In Semitico-Libyan it is generally feminine. The sibilant is a demonstrative as well as a definitive &c in Semitic and Semitico-African.

Although masc. and fem. are not distinguished in Malagasy, it has many of the forms which are distinctively masc. or fem. in the Semitico-Hottentot system. This may arise either from the severance of Malagasy from the main stem having happened prior to the appropriation of certain definitives to m. or f., or from its having lost that distinction. The latter reason is probably the true one. From the analogy of some of the monosyllabic languages, and particularly of Tibetan, it is probable that the distinction of m. and f. is a primitive one, and from the evidence of Indo-European and Semitico-Libyan it is clear that it is one which tends, like many other early analytic forms, to be impaired in force, narrowed in use and even lost, in the progress of the linguistic changes caused by the lapse of time and the action of other formations. It is probable that Malagasy like Scythic has lost a distinction which is now only fully maintained in Hottentot of all the Scythic, Indo-European and Semitico-African languages.

The formative system of Malagasy resembles the Semitico-African, but more especially the African, in its whole ideologic basis, in the functions of its particles, in the modifications produced by compounding and repeating them, in the use of the common definitives and directives as assertives and formatives, and in the power of rendering every simple or compound form either assertive or substantival. In the variety of its formatives and the extent

to which it combines them, it is African much more than Semitic.

The system is somewhat complicated at first sight. The functions of the particles and their compounds cannot be exactly described by our grammatical terms. They are chiefly based on the recognition of gradations of energy and power, and on the distinction between action in or for oneself, and action of which the object is external. There is a tendency to view action primarily as an attribute of the *object*. The assertive or participial stem without any affix, denotes the action, not as proceeding from an agent, but as completed on the object, e. g. tery is not "to press" or "pressing" but "pressed," that is, the result of the act, as an attribute of the object, is the verb stem.* The roots and stems however vary, some being used substantively and others attributively, but those that are essentially active are generally qualitives or participles like tery. The degrees of action are, to a certain extent, measured by the number of agencies between the primary cause and the action. In the 1st or lowest degree of action, that which is purely intransitive, the act is single, the actor voluntarily or involuntarily producing, or being considered as producing, the effect in himself. The 2nd is the simple transitive, where the act has a double energy, as it proceeds from the agent and falls on the object. The former, through his own agency, produces the effect in another. In the 3rd the agent, through an intermediate party, produces the effect in another. A causes B to act on C. In the 4th A causes B to cause C to act on D. There may be also combinations of intransitive with different degrees of transitive action. All this the Malagasy denotes by compounding the different particles. So far as the power of compounding reaches, it is based on one principle, viz. that the stem with its affix forms a distinct word, which, like radical words themselves, may receive other affixes or the same affix again, if its meaning admit of the kind of modification or application denoted by these affixes. It is obvious that the common relations of objects and actions do not require this system to be carried far in practice, and that beyond a certain point confusion would arise in

* The roots of transitive attributes are considered as "passive participles," whether they occur bare (e. g. tery "pressed," vaky "split"), or with the prefix vua-. Hence all roots are, according to their nature, substantive or qualitive, the latter class embracing what in less crude languages would be adjectives and verbs.

minds that had not a strong analytic power. Most of the compounds admit also of the time mutations in the initial attributival letter. Simple as the system is when analysed, it is not altogether mechanical in its character. The elements in the compound prefixal and postfixal envelope, do not retain their exact separate force. The combination has often more of the nature of a chemical one. Even reduplication does not express a mere increase in the force or quantity of the function of the particle. It often imports a new and higher power. Thus it raises the purely transitive into causation by an intelligent agent.

The definitives used as formatives are *-na*, *-an*, *-ana*, *-ina* &c., participial, substantival; *i* substantival, assertive, intransitive; *a*-active, participial; *vu-a*-, transitive, perfect passive participle; *ma*-, *na*-, *nga*-(also *man*-, *mang*-, *mam*-,) qualitative, assertive, transitive and also substantival,—with *i* for *a* it becomes intransitive, passive, qualitative, possessive; *ha*-, *ka*- substantival, generally abstract. *Tra*, *tr*, which occurs amongst the demonstrative elements, is a frequent substantival postfix. With *-ana* it is contracted to *t* (*-tana*). In the coast dialects it is replaced by *tz*, which is also a demonstrative element. There is another important formative which does not occur in the list of current definitives, *pa*- or *fa*- (also *pan*-, *pam*-, *pan*-, *fan*-, *fam*-, *fang*-). It is substantival and agentive, and with *i* for *a*, intransitive. All these formatives are compounded and reduplicated to an extraordinary degree. Amongst the more important compounds are *mpan*-, *mpi*-personative; *mampan*-, causative transitive; *mampi*-, causative intransitive; *mampampan*-, reciprocal (double agent and double object). Still more complex forms are *mifamfan*-, causative reciprocal; *mifampifan*-, a higher degree of external agency. With *ka* or *ha*, (intransitive *ki*, *hi*) other compounds are produced. *Maha*- or *manka*- is causative, potential-causative &c. Its substantival form is *faha*-. With the participial postfixes the prefixes produce various useful forms. *An*- (*am*-, *ang*-) with *-ana* is an abstract transitive substantival form. *I*- with *-ana*, or *-na* is the corresponding intransitive form. *I*- with *-i-na* is generally passive. *Fu*- (*fan*- &c.) with *-na* expresses the instrument, means, cause &c.

The suffix pronouns also form verbs, as in many Africo-Semitic languages, the particle *rua* [=bua] being also prefixed. Words

are made imperative by the postfix *-a*, or by afflexion of the terminal vowel or syllable, as in some African languages.

The principal attributive formative is *ma-* (present), an African definitive which is also used as an assertive or verb absolute in Zimbian and other African languages, under various forms (*ma, ba, mbe* &c.) In Acra and Susu it is also the assertive of the present. In Egyptian it is imperative. In Hausa it is both a qualitative and a substantival prefix. In Bornui it is a substantival postfix, denoting the agent, means or place of an act, and thus corresponding with the uses of the Malagasy *pa-*. In Malagasy it becomes *na-* in the perfect or past and *ha-* in the future, an apparent flexion of an African kind, originating, doubtless, in the appropriation of different definitives or directives as assertives to different tenses, a common African trait, and one that is not confined to Africa. In its qualitative use it occurs in the Galla-Hausa group, with which Malagasy has many special affinities. In Galla it is passive (*-ama*), and has also an assertive, inchoative, force with qualitives, the final vowel at the same time being changed to *o* (*gar-i* "fair," *gar-o-ma* "to become fair.")

Both *na* and *ha* are auxiliary or tense assertives in Hottentot, but *na* is present and *ha* perfect (the future taking *ta*). *Na, am*, is also past as well as present in Hausa, where it is evidently the def. *na* used as an assertive. It is generally present as in Hottentot, and appears to be properly participial as in that language. The Hausa *ha*, past, corresponds with the Hottentot *ha* past participial, used also as an element in the verb form. *Ha* may be connected with the Zimbian *sa*, a formative used in the future. The common tense assertives in most of the African languages are single vowels.

The active *a-* (imperative *-a*) is probably the definitive, demonstrative and objective *a* (*an* &c.), and identical with the *a* of *ma, na, ha, fa* &c. By itself it is used assertively in other African languages. In Zimbian and some of the Mid-African languages it is the generic assertive postfix. In Hausa it is prefixal as in Malagasy, but distinctively passive-assertive, (*a-, an-, ang-, am-*, the euphonic consonants being used before the same letters that require them in Malagasy).

The passive force of *-i* (in *mi, ni, hi, pi* &c.) allies it with the Hottentot and Tumali passive *-e*. Zimbian has *u, o*. Yoruba like Hausa has *a-*.

The distinctive powers of particles which have a common generic element are often confounded, interchanged or lost, in the course of historical and dialectic changes. A passive particle becomes intransitive and even transitive, or absolutely assertive, or falls into disuse.

The participial and substantival postfix *-na*, *-a-na* &c. is Hottentot (*-na* participle present), Hausa (*na*,—*ibid.*) and Bornui (*-na*). The forms in *-i* (*i-na* &c.) may have some connection with the Egyptian *-i* (participle past or passive).

Pa, *fa* &c. is common in African languages as a definitive, but its easy commutation with *wa*, *ba*, *ma*, renders the more direct and special affinities of the Malagasy particle difficult to trace. In certain of the compound Malagasy formatives *p* appears sometimes to be used with precisely the force of *ma*, and simply for euphony. In the forms *b*, *f*, it is the archaic masculine definitive of the mother Africo-Malagasy formation (Hottentot, Bishari, Egyptian &c.), and its agentive and frequently personative power in Malagasy is probably connected with its original masculine function. In Egyptian *pa* is also used as an absolute assertive. The same particle is probably identical with the common definitive and assertive *ma*, although *ma* and *pa* may have long had a separate history in Malagasy and other languages of the archaic alliance. In Galla *fa* is one of the three main particles that enter into the system of compound formative postfixes. It has an agentive and intensive force. In Zimbian *ma*, *ba*, *pa*, *va*, are definitive prefixes, and in several of the Mid-African languages they have a similar force as prefixes or postfixes. In Susu *fe* is a postposition with a substantival force. The Bornui postfixual *-ma* corresponds in its functions with the Malagasy *pa*.—

Ka (*ha*) is a definitive common to most African languages. It is found in all the Zimbian under the forms *ha* (Makua, Suaheli &c.), *ku* (Kosah, Zulu &c.) &c. In the African languages *k* and *t* frequently pass into each other, and the definitives in *k* and *t* are in general variations of one root. *Tu* is common as a definitive and substantival formative, prefixed or postfixed, in most of the Mid and North African languages (generally feminine). In some of the Mid-African languages *k* is an annexed substantival definitive, and in others it appears to be interchangeable

with *t*. Woloff and Efik have *-k*, *-t*. In Felup *ha-* is qualitative.

In Malagasy the numerals are made ordinal by prefixing *fa-ha-* [=fa-ka]. In the African languages the current definitive prefixes and postfixes are used for the same purpose. With *ha-* and *-ana* the Malagasy numerals express periods of days, e. g. (*ha-teluana* "three days.")

The absence of the active and causative *si*, *sa*, common but not universal in the Semitico-African languages, is the chief glossarial peculiarity of the Malagasy system, but *i*, *hi*, *ha*, may be connected with it.

The following examples will illustrate the powers of the Malagasy formatives, the effect of composition, and the resemblance of the whole system to the more agglomerative Semitico-African ones.

Root, solo, "substitute"; Intransitive—Indic. pres. *misolo*, perf. *nisolo*, fut. and inf. *hisolo*, imper. *misoloa* &c; Participles, pr. *isoloana*, perf. *nisoloana*, fut. *hisoloana*; *vuasolo* "substituted," *asolo*, "being placed as a substitute," *soloana* "being substituted," *fisolo*, "the mode of substituting, cause, means &c. of it," *mpisolo*, "one who constantly substitutes another," *fisoloana* "the time and place of substituting." The other simple and compound forms *mam-*, *maha-*, *mampi-*, *mampan-*, *mampampan-*, *mifan-*, *mifampi-*, *mifampan-*, *mifampifan-*, *mampifan-*, *mampifampan-* &c are each modified in the same way. *manolo* or *manasolo* is "to replace," "to place another as a substitute;" *mahasolo*, "to be capable of substituting," *mampisolo*, "to cause to substitute;" *mampanolo*, "to cause to replace or substitute," *mampampanolo*, "to cause to order to substitute," *mifanolo*, *mifampisolo*, "to exchange reciprocally," *mifampanolo* "to cause to replace a thing reciprocally," *mifampifanolo* "to cause reciprocally to substitute" when more than two persons; *mampifanolo*, "to cause to exchange with one another," *mampifampanolo* "to order to cause to exchange &c." The initial *m* of all these forms becomes *n* in the perfect, and *h* in the future and infinitive. The participial and substantival forms of the last are *ampifampanoloana*, *mpampifampanolo* &c &c.

Examples of the glossarial application of the Transitive and Intransitive particles:

MAN; and MI. *Manarona*, "to cover," *misarona* "to cover one's self." *Manangana*, "to raise, to erect," *mitsangana* "to

stand, to rise up." *Mamoaka* "to drive out," *mivoaka* "to go out." *Mangororoana* "to pour upon," *migororoana* "to flow upon, to fall upon."

PA, PAN, PAM, FA, FAN, FAM; and PI, FI. *Fiboroahana*, "a hole," *famboroahana*, "a borer." *Firaisana*, "union," *fandraisana* "usual time and place of union or reception." *Firakitra* "the mode of preserving," "that what it is the custom to preserve," *firakotra*, "a cover," *fitoriana* "the place of pleading," *fanidiana* "a lock" (i. e. the means of locking); *fanihisana*, "a scraper," *famahazana*, "the place and food for fattening," *fandravana*, "destruction," *faninanana*, "defiance."

IN and AN. *Angalarina* "being stolen;" *angalarana* "the stealing, cause, means &c." *Tafiana* "being clothed," *tafina*, "being worn." *Igadrana*, "the being in irons, cause &c," *angadrana*, "the fettering."

IN (passive) and I—AN (active) *sorobina* "being avoided," *isorohana* "avoiding, cause, means of it;" *sotroina* "being drunk up," *isotroana* "the drinking, means, cause;" *karamaina* "being hired"; *ikaramana*, "the hiring one's self, cause, means."

Examples of the application of several particles to the same word: *Minuna*, "to drink the tangena" (an ordeal); *ampinumina* "being made to undergo the ordeal of tangena;" *finumana*, "the ordeal, the ceremonies;" *mpampinuna*, "the administrators;" *fampinumana*, "the administration." *Ady* "fight &c," *miady* "to fight;" *mampiady* "to cause to fight;" *iadiana*, "to be fought against, place, means of fighting;" *fiady* "disputable, that which should be fought against, mode and kind of fighting;" *fiadiana*, "weapons, field of battle;" *fiadina* "two or more in the habit of disputing, apt to quarrel, pugnacious;" *miadiady* (redup.) "to dispute &c." *Empo*, "melted," *iempoana* "the melting" (of its self); *anempoana* "the melting" (by the melter); *fanampoana* "the melting pot &c." *Soratra*, "colour," "a writing"; *manoratra* assertive pres.; *fanoratra* "the mode of writing"; *mpanoratra* "the writer"; *anoratana*, "the arranging, writing, cause &c"; *fanoratrana*, "the instrument of writing" (pen, desk &c); *misoratra* "to be spotted, printed, to be of different colours"; *soratana*, "being arranged or written." *Soritra*, "a mark, sculpture," seems to be a modification of the same root.

The affinities between Malagasy and the archaic or pre-Semitic Nilo-Nigerian or Libyan formation are so extensive and essential that it may be ranked with Egyptian, Galla, Hausa, Bornui and the less Zimbrianised Nigerian languages as a member of that formation. Each language has had its own changes, and several of the African have been modified by influences from which Malagasy has remained exempt. But even in this respect there are African languages which remain more true to the archaic type. The habit of compounding particles belonged to the primary system, for it is found in the Egyptian pronouns and prepositions. But the extent to which euphonic agglomeration is carried in Malagasy is attributable to the influence of a formation which was little felt in Egypt, and which affected Malagasy even more than Galla and the other vocalic language of Mid-Africa.

It is remarkable, but in accordance with the history of all formations and dialectic developments, that some African traits are preserved in Malagasy and its Asonesian derivatives which have been lost in most African languages, and that some African traits, now lost in Malagasy, are extant in its Asonesian sub-formations. Thus the two forms of the plural of the 1st personal pronoun, which appear now to be confined to Hottentot and Vei amongst the known African languages, are found in Malagasy and its least degenerated offshoots in the eastern islands, while the dual and the companionative of Africa are found in some of the latter although not in Malagasy. It must be remarked however that neither Malagasy nor the African languages have been sufficiently explored to render it certain that some of these losses are not merely apparent. It should also be added that the dual with the double forms of the 1st pronoun plural in some at least of the Asonesian languages have been derived from India.

Note to Supplement B. of Sub-Section 5.

ZIMBIAN PRONOUNS.

From the number of sources of different value, from which the forms in the table are derived, a few of them may be of doubtful authenticity. To show the uses of the several forms in some of the best known dialects I shall give the Kafir or Kosah, the Zulu and the Suaheli systems, from Appleyard, Grout and Krapf.

In Ama-Kosah, according to Appleyard, the "*simple*" form is distinguished by the final *-na*, which is dropped in the other forms. It appears to have the form of an agentive (and vocative) postfix. The 1st pron. has *mi* in the Sing. and *ti* in the Pl.; the 2nd has *we* in the Sing. and *ni* in the Pl. The poss. and loc. of the 1st in the Sing. is formed in the ordinary mode (*wa-mi*). In the other forms both root and prefix undergo changes. The Pl. of both pronouns changes the vowel from *i* to *u* in the poss. and loc. (*tu* for *ti*, *nu* for *ni*). The 2nd pron. in the poss. Sing. is not *we* but *ko*. The prefixal or euphonic forms furnish some further mutations. The 1st pron. is in the Sing. *ndi-* before consonants and *nd-* before vowels, and in the Pl. *si-* and *s-* (a phonetic flexion, *s* for *t* of the separate form). The 2nd pron. is in the Sing. *u-*, and also in some cases *ngu-* and *ku-* before consonants and *w-*, also *u-*, *ng-* and *k-* before vowels; in the Pl. *ni-* and *n-* (the separate form). *Ku* is also the medial or objective form of the 2nd person Sing. In analogy with the substitution of forms in *k*, *ng* and *y* for the labial *w* of the 2nd pronoun, the labial definitive is replaced by *ye* as the 3rd pronoun (*ye-na*) and by *ng-*, *k-* and *y-* as a prefix.

Mr Grout gives the following as the Zulu forms, which he classifies as "the radical," "the oblique" and "the definitive." 1st Pron. *Rad.* Sing. *gi* (subject, or object), Pl. *si*; *Obli.* *mi*, Sing., *ko* Pl.; *Def.* *mi-na* Sing., *ti-na* Pl. (definitive "I, me, in particular"). 2nd Pron. *Rad.* Sing. *u* subj., *ku* obj., Pl. *ni*; *Obli.* Sing. *ko* (with a noun), *we* (with a preposition) Pl. *nu* (with a noun), *ne* (with a preposition); *Def.* Sing. *we-na*, Pl. *ni-na*. Mr Bryant informs us that the dissyllabic form of the nominative is never used as the direct subject of the verb. It is only superadded for emphasis, e. g. *ye-na u ya gula*, "he, he is sick," *mi-na gi ya tyo ku-ni* "I, I say unto you."

In Suaheli the 1st Pron. has the following forms. *Sing.* Agentive sep. mi-mi or mi; Ib. emphatic mi-mi ndi-mi; Ag. pref. ni (n-a-pres. indic. and plup., n-i-ib. imperf. and perf.); Obj. pref. or infix ni; Obj. postf. mi or mimi; Poss. ngo (with the def. pref. of subject of possession). *Plur.* Ag. sep. sui-sui; Ag. pref. tu; Obj. pref. or infix tu; *ib.* postf. sui or sui-sui; Poss. tu (with def. of substantive prefixed). 2nd Pron. *Sing.* Ag. sep. we-we or we; Ag. pref. u, w (w-a in pres.); Obj. pref. or inf. ku; Ib. postf. we or we-we; Poss. ko (with def. pref.) *Plur.* Ag. sep. nui-nui; Ag. pref. m, mu; Obj. pref. or inf. wa; Ib. postf. nui or nui-nui, Poss. nu.

The adjacent Kinika varies from Suaheli in some forms. 1st Pron. mi-mi or mi-no, 2nd uwe sing., mui-mui or mui-no pl. (m for n), mu ag. In the pl. the poss., the ag. pref and the obj. inf. have hu in place of su.

In Suaheli an emphatic agentive is formed by repeating the pron. with ndi prefixed; mi-mi ndi-mi ni-penda-i "I who love" (the pronominal root occurring 4 times); we-we ndi-we u-penda-i "thou who lovest."

On comparing the various forms of the proper pronouns with those of the definitives of the third person, which are also those of substantives, some deviations are observable, and what may be termed the irregular forms appear to be mostly Semitico-Libyan. The plural ti, si, tu of the 1st pron. has no flexional relation in its consonant to the singular mi, and cannot be referred to any of the flexional modes of forming the plurals of definitives. It is a different root and identical with the second element of the Semitico-Libyan full pronoun an-a-ku, an-o-ki &c., whence the poss. and other curt forms ku, ek, tu, ti, si, &c. The plural n, m, (ni, nui, nu, mu,) of the 2nd pron. is not one of the Zimbrian plural flexions of the labial singular. But n, m, are Semitico-Libyan plural elements, and in some N. African languages they represent the pronoun and have even been transferred to the singular. Thus the Ethiopic plural postf. of the pret., ke-m masc., ke-n fem., becomes sing. in Berber while the distinction between m and n disappears (ekim, kemmi, im, em). In several languages n, m are found in the singular (e. g. Bornui ni ag., -mi verb postf., n-um poss., Emgh. ne, ni, ag. Fanti

ano, Fulah an, Gonga ne, Malagasy nau, ano, no).^{*} The *u* found in some of the plurals is Semitico-Libyan. The poss. of the 2nd pron. sing. is also a distinct root from the agentive, and Semitico-Libyan. The Kosah prefixual *ndi*, *nd*, of the 1st pronoun has no relation to the *mi* of the separate form. It is probably a variation of the Suaheli *ni*, Kongo *n*, which are Semitico-Libyan. The prefixual form of the 2nd pron. in *u*, *w*, is referable to the separate form *we*, and the *ngu-*, *ng-*, *ku-*, *k-*, may be also from the separate oblique form, but they are considered by Mr Appleyard to be merely phonetic substitutions as in the 3rd pronoun. That they are identical with it is clear, but they appear to be undoubtedly separate definitives, for *ng* and *k* cannot be phonetic flexions of *w*. The 3rd pron. in *ye* appears to be also a distinct root. They appear to be all definitives. In Semitico-Libyan the root of the 2nd pronoun is the common dental def. variable to *k*, and roots in *w* and *y* are also current as definitives.

The great variety of the pronominal terms is common to Zimbiana with most of the Semitico-Libyan languages. Its distinctive terms are *mi-na* &c. "I," and *we-na* &c. "thou."

The Zimbiana forms of the Semitic terms,—1st Pr. *ni*, *ndi*, *ki*, *gi*, *ngi* Sing., *sui*, *sue*, *tu*, *ti*, *si*, *hu*, *hi* &c Pl.; 2nd Pr.† *ko*, *ngo*, *ngu*, *ku* Sing., *nui*, *mui*, *nu*, *mu*, *ni*, *ne* Pl.—connect Zimbiana more particularly with the North African forms of Semitico-Libyan. The 1st pron. in *ni*, *ndi*, *n*, *ki*, *gi*, *ngi*, *ghi*, &c. resembles the Hebrew, Himyaritic and N. African forms. Heb. *ano*-*ki*, Gara -*ek*. Berb. *ne*-*ki* (prob. the full form of the Egyptian *ne*-*k*); Heb, Galla, *ani*; Heb., Ar., Hausa *ni* &c. The Zimbiana labial has also *i* and it is found in the 2nd Pron. also. It appears to have a definitive function. As a substantive postfix it is appropriated to the animate class. In the Semitico-Libyan system it is generally fem., while *-u* is masc. In the archaic stage of this system *-i* was poss. with substantives. The Zimbiana prefix *ni* being singular is to be identified, not with the aorist pl. *ni*, but with the singular poss. postfix *-ni* of Hebrew and Arabic, which is in fact the root of the pronoun with the fem. vowel. The prefixual position corresponds

^{*} In Arabic the postf. of the fem. sing. in the aorist is *-ina*, the masc. pl. postf. of nouns, but *na* is a fem. pl. postf. with pronouns.

† In the table *ni-na*, the Kaf. *pl.*, has been transposed and given as a form of the poss. sing., of which the full form is *wa*-*ko*.

with the Semitic aorist, and with the common Nubian and Hausa collocation. One of the forms of the Hausa first person is the same as the Zimbian *e. g. ni neh*, "I am."

The plural forms of the 1st pron. *sui, sue, si, ti, hi ag., su, tu, poss., obj.*, may either be true plural forms, or simply the Semitic singular *ti, tu, ku &c* (in Hottentot *ti, si*) applied to the plural. From the occurrence of *ni, ne* in the plural of the 2nd pronoun also and in the western as well as the eastern branch of Zimbian, it is probably archaic, and the southern form, *i*, a contraction of it. In *sui*, the *u* is the proper plural element, *s* being the pronominal root and *i* the vowel of the singular, corresponding with the Semitic fem. vowel. In *nui* the *n* appears to be also part of the Semitico-Libyan plural particle. The retention of a final *i*—whether fem., possessive or agentive—in the plural, along with a plural vowel, is not anomalous. It is only in the later, elliptic and flexional forms that the singular vowel has disappeared in the plural, or a sexual vowel, originally singular as well as plural, has acquired a plural function. Berber has forms analogous to the Zimbian. 1st Pron. *ne-k-i* sing., *ne-k-n-i* pl.; 2nd Pron. *ke-chch-i* sing., *ku-nw-pl.*, the *nw-i* of the 2nd pronoun being identical with the Zimbian, and the 1st pron. also preserving the final *i* of the singular. The proper Semitic languages also preserve remains of the stage in which the plural definitive was kept separate from the pronoun, which re-appeared with its singular vowel in the plural. The aorist was formed at this stage. In the 2nd and 3rd persons the agentive pron. pref. is the same as in the singular, the plural definitive being postfixed to the root of the verb or rather substantive, for it is the pronominal prefix which renders the term assertive. In the first person the plural particle *n* is prefixed to the pronominal vowel which is the *a-, e-* of the singular. The Dankali preserves a similar collocation in its separate forms, *ennu* sing., *n-ennu* pl., so in the poss. *i* sing., *n-i* pl., the latter being identical with the Semitic aorist from the common interchange of *e* and *i*, of which Hebrew has an example in its *e* of the sing. and *n-i* of the pl. The general Semitic affinities of the Zimbian pronouns appear to be through the early North African form of Semitic. Hence the close resemblance to varieties of the roots and affixes preserved in Berber, Hausa, Gonga &c. In Egyptian, which has close relations

to Berber as well as to the southern Nilotic tongues, a form of the plural is found identical with the Berber and Zimbrian -ui. Egyptian has -u as its ordinary plural particle, but it preserves -ui in the dual of adjectives, and in Coptic -ui is one of the forms of the plural. It may also be remarked that Egyptian shows a tendency in its demonstratives to a final i after a vowel, pa-i, pu-i, na-i, nu-i, when the i is a superadded definitive. Similar demonstratives are found in Berber (wa-yi &c) and Hausa (ma-i). Hausa also takes a final i in some forms of its 2nd and 3rd pronouns (2nd ka-i, 3rd ta-i).

The plural forms tu, su, hu, do not fully correspond with any of the proper Semitic forms in the pl. The Arabic tu-, Ethiopic ku- of the sing. are phonetically the same, but in these the u is probably the archaic masc. sing. vowel. But Semitico-Libyan plural forms in which the vowel of the singular has been elided or replaced by the plural u are common. Hebrew 1st pron. an-i sing. an-u pl. (in the poss. n-i, n-u), Berber 1st pron. n-e-, n-u-, 2nd k-e-, k-u-, Galla 1st a-n-a, u-n-u, Hausa 2nd k-a, k-u, 3rd s-a, s-u.

The poss. ko, ku of the 2nd pron. is the same as the Dankali poss. ku. In the other Semitico-Libyan systems ku is plural, but Coptic has o in the sing. in some of its full forms, e. g. n-to-k.

* * References to Authorities on the Sudanian and Nilotic languages.

SUDAN: Dr Barth, Comparative vocabulary of Hausa and the language of Agadez, Timbuktu and R. Bambarrah, with examples of sentences (Journ. R. Geogr. Soc. xxi, 169; Voc. &c *Ib.* 154; Timbuktu Voc. *Ib.* 213; Budduma or Lake Chad Voc. *Ib.* 214; Koenig, Voc. of Bornui, Mandara and Bagherma Recueil de Voyages iv.

W. NILOTIC: Henry Salt, Darfur Voc. Appendix to Voyage to Abyssinnia xvi; Koenig "Vocabulaires Nubiens" (comprising those of Donzola, Dar el Mahas, Noban and Darfur) Recueil de Voyages, iv.; Lorentz Tutshek, "On the Tumali language" Proceedings Phil. Soc. iii, 239; *Ib.* Fazoglo or Quamamyl Voc. *Ib.* iv, 139. (This vol. I did not see till the text was in the hands of the printer, but a short Voc. by Dr Tutshek is given in Dr Latham's Report).

E. NILOTIC: C. T. Beke, "On the Languages and dialects of Abyssinia and the countries to the South" with a Comparative Vocabulary of the Azau group (Waaq Agau or Hhámara, Falasha and Aguu of Agaumider) Gafat, the Gonga group (Gonga, Kaffa, Woratta, Wolaita and Yangaro), Shankala of Agaumider, Galla of Guduru, Tigre and Harragie, (Proceedings of the Philological Society ii, 97); Krapf, Voc. of U-kuaft (Zeits. d. Deutschen Morgenl. Ges.-ltsch. i, 55); Henry Salt, Voc. of Suaheli ("Sowaali") Appendix to a Voyage to Abyssinnia p. iii; Saumali Voc. *Ib.* iv; Hurrur, Galla and Adaiel Vocab., *Ib.* vi; Danakil Voc. *Ib.* xi; Arkeeko and Shihó Voc. *Ib.* xiii; Takue and Boja Voc. *Ib.* xiv; Barea Voc. *Ib.* xv; Adareb or Bishari Voc. *Ib.* xv; Agau, Tigre and Amharic Voc. *Ib.* xviii; Shangalla or Dar Mitchequa Voc. *Ib.*, xxii; Dalla or "Tacazze Shangalla" Voc. *Ib.* xxv; Lawrence Tutshek, Grammar of Galla; *Ib.* Dict. of Galla. Koenig, Saumali Voc. Recueil de Voyages iv. *Ib.* Dankali Voc. *ib.*; C. W. Isenberg, "Grammar of the Amharic Language."

A

COMPARATIVE VOCABULARY OF SEMITIC AND AFRICAN NUMERALS:

I. SEMITIC

As the Semitic system occupies a peculiar place with relation to the Asiatic on the one side and the African on the other I shall give it separately, referring to the Semitico-African list for the detailed statement of the affinities when they are both African and Asiatic.

One.

A. (a.) wa-h-id, or wa-h-ed, wa-h-ad, a-kh-ad, masc.* wah-id a t-a, a-kh-ad-i fem. Arabic, e-kh-ad masc., a-kh-at fem. Hebrew, kh-ad masc., kh-ada fem. Chaldee, ta-ut Mahrah, Gara, uo t-ua, va Egyptian.

The Semitic forms are most closely connected with the Ugrian, in this agreeing with the Indo-European. [Semitico-African I. A.]

As a definitive, separate or concreted with other roots, a 3d pronoun, a demonstrative &c. the most archaic Semitico-Libyan form of the root A appears to have been the aspirate and sibilant, passing into the dental and guttural, hu, su, tu, khu, ku &c.

As a unit the purely aspirate form is found in African languages, but it is rare. The sibilant is the most common, not only in African systems but in the higher numbers of the Semitic, from which it follows that Semitic dialects had originally s forms in 1 also. The variations were simply the definitive in its different forms. Thus forms similar to the Babylonian su-va masc., su-at, fem. "this, he, she", su-nu, su-na, su-n, su-nu-t, su-na-t plural (consequently not 1 but 2 as in sa-na 20 and the common Semitic 2 she-na &c.), the Egyptian en-tu-f masc., en-tu-s fem., en-te-s-en, s-en pl (3d pronoun), the Arabic ho-wa masc., hi-yat fem., ho-m pl. masc., ho-anna pl. fem. and other Semitico-African forms of definitives are found as units in 1 or in higher numbers. Hottentot, which has the guttural form of the unit, shews the archaic range of definitives and consequently of numeral elements very clearly, quei-mb masc., quei-s fem., quei-hu pl. masc., quei-tee pl. fem., quei-na or qu-an pl. com.

Many of the numeral terms have a redundancy of definitive elements. The primary pronominal postfixes appear at a remote period to have become concreted with the root, when new or secondary postfixes were superadded. Thus the nucleus of the Semitic 2 was the definitive with its dual or plural postfix th-n, s-n, t-r. At a later stage a secondary plural postfix was assumed as in ath-in-an masc., ath-in-t-an fem. Arabic, ta-r-t-en Chaldee, she-ta-yim Hebrew, (in which the original na is elided although preserved in the masc. she-na-yim where the two plural elements are in juxtaposition as in the Arabic term.)

In the current forms of 1 the dental postfix only is used. This is the definitive itself, with or without its secondary feminine power. In other terms the liquid plural na, la, ra &c. and the labial masculine are preserved as postfixes, and it is probable that in the original Semitic system they might all be used in 1 also, the plural power of the liquid being secondary.

(b.) The sibilant unit takes the liquid postfix in 10 ash-ar, as-ra, Ar.,

* Some Provincial and extra-Arabian forms are included, to shew the phonetic variations to which the terms are liable.

which appears to be preserved as a pronoun in the Hebrew relative *ash-er*. Terms for 5, 10, 100, are units in most languages, and this term is still used for 1 as well as 10 in Africa. [Semitico-African Numerals 1. A. g.]. The same form occurs in the Semitic 3. The *n* form of the postfix, variable in some dialects to *r* and in African ones to *l*, occurs in 2, with its dual or plural force, but here it is probably to be considered as the second element in a compound of two definitives.

(c.) The labial (masculine) postfix occurs in terms which must have been originally units. In the Semitic system this form first appears in the highest term of the primary quinary system, 5, and in African systems it is used in 10 as well as 5. In Egyptian it is preserved in 3 and it enters with the same power into the Semitic and Egyptian 8. If the labial had occurred in 3 and 8 only, it might have been considered as a second radical definitive in a compound, but in 5 and 10 it must represent an archaic form of the unit. In African systems it is found in other numbers as a postfix or prefix, in the same mode as it occurs attached to substantives and qualitatives. [See the remarks on 3. A.]

B. *a-wal masc., a-wal-i fem.* "first", Arabic, [bar Persian.]

This archaic unit is preserved in African languages as a cardinal term. In Semitic it occurs as such in the contracted form *ar* in 4. It is a N. and E. Asian and Dravido-Australian definitive and unit.

In the Semitico-Libyan formation the labial was an important archaic definitive. It is largely preserved as a postfix and prefix. As a 3d pronoun and demonstrative, the sibilant, dental or guttural definitive appears to have early gained exclusive currency. The labial, however, keeps its place even in some separate terms, as in the interrogative pronoun, *ui*, *mah* Heb., *ma*, *ma*, *mā* Ar., and in the Gonga 3d pron. *bi*. It is also relative in Arabic, *man*, *Gara*, *mon*, *Mahrab*, *mob*. In Hausa it is demonstrative (*wong-ga* "this", *won-an* "that") and relative (*wen-da*, *won-na*). In the Zimbian family the labial is one of the chief definitives, 3d pronouns and demonstratives. From a very early period the labial definitive acquired a masculine power and it is possible that the numeral *wa-l* and the allied African *ba-ri*, *ma-ri*, *va-t*, *pa-ka*, *ba-si*, *mo-si* &c. were formed after it had acquired that power but while secondary definitives might be preposed as well as postposed. The sibilant and dental was common before it became feminine, and the masculine function of the labial may have been a consequence of the other principal definitive becoming feminine. But it is more probable that the labial was the first to receive a sexual (masculine) power, and that as a numeral element in the archaic Semitico-Libyan system it is to be considered as masculine. The other definitive certainly occurs in that system as in the pronominal both as an archaic common and as a later or secondary feminine particle. [See Semitico-African Numerals 2. B. c.]

Two.

ith-na-ni, *eth-in-an*, *is-in-in*, *s-n-in masc.*, *ath-in-ta-n fem.* Ar., *she-ne*, *she-ne-m*, *she-na-yim*, *masc.*, *she-ta-yim*, *fem.* Heb., *s-roh* *Mahrab*, *te-r-en* *masc.*, *ta-r-i-t-en* *fem.* Chald. (*s-an-ra* or *sa-n-na* 20 *Babylonian*), *s-nau*, *s-en-te*, *s-nu ti*, *s-nou-s* *Eg. Copt.*, *the-na-t* *Berb.*, (*si-n* in 12, 20 &c.), *sin* *Shillah*, *ti-ng* *Bullum*, *si-l-i* *Kalahi*, *ki-le-te*, *khe-li-te*, *qui-le-t*, *hu-l-et*, *Abyss.*, *he-li-ta*, *Gafat*, *ki-lli* *Arkiko*.

The initial sibilant (ith, she, sh, s, the, variable to khe, ki, he) is found in 3 and other terms, and the t and k of 1 are only variation of it. In the Indo-European 2, 3 and 4 it occurs in the dental form t, d, and in Scythic and other N. and E. Asian languages as s, t, k &c. In the Indo-European and several Scythic terms (2, 4) a labial is interposed between the initial and the final elements. In the Indo-European 2 the labial only is preserved, in 4 both the labial and the final, t-va-r &c. In the absence of the labial, Semitic resembles the Caucasian, (Mingrelian shi-ri, which has the Arabic vowels, Samofede si-ri, si-de). In the Caucasian z-u-r, Mongolian k-o-yar, (j-u-r in 4, z-u-r in 6) the influence of a lost labial is perhaps still felt in the broad vowel. As an essential element of 2 n, l, r is common in N. and E. Asian numerals. Chinese has it in the apparently contracted il, ni, urh 2. Ugrian, which has lost it in 2, preserves it in 4 ni-la, ni-l, ni-l-iz and in 8 ni-da &c. Aino has it in 4 i-ne, y-ne, which appears to be a contraction of the full term preserved in the Yeniseian 2 ki-na, also hi-ne, i-ne, and in the Aino 1 zi-ne. The last, like the Kamschatkan ka-ni' is doubtless a remnant of the original system in which the term was used as a unit. It is a Scythic 3d pronoun.

The postfix na, ne &c. of 2 is the Semitico-Libyan plural definitive. The numeral s-nu, s-en, she-na, ath-in was therefore in all probability the plural form of the definitive, and identical with su-nu, s-en &c. In other formations also the liquid definitive is not only a principal element in 2 (and often in higher dual numbers, 4, 8), but is a plural or dual particle. In Arabic it is dual as well as plural. If the sibilant were considered as an archaic prefix as in Zimbian, as in the Malagasy iz-aho "I", and as in many substantive words of Semitico-Libyan glossaries, na would become the radical element of 2.

The wide prevalence in Africa of a labial term, full and contracted, (ba-ri, ba-r, a-r, ma-l-ub, bi-ri &c. &c.) and the persistence of a similar term in the Semitic 4 (2 dual) renders it probable that it was archaically a term for 2 in the Semitic family, or in that western branch which first gave numerals to Africa. See African numerals 2, 4, 7 (5, 2), 8, and Semitic 4, 7. In the occurrence of the labial both in 1, and 2 the archaic Semitico-Libyan system resembled the Scythic and the Dravido-Australian.

Three.

A. The Egyptian sho-men-t, sha-me-t, sho-m-t, sho-m-ti, sho-m-te appears to preserve a term once possessed by Semitic. It recurs as the unit in the Egyptian 10, without the sibilant prefix. men-t, mo-t me-t, me-ti. me-te, and in the Egyptian and Semitic 8 (5 3). The Egyptian 8 is sh-moun, sh-men, sh-mu-ne, sh-me-ne, sh-me-ni, 80 h-me-ne, kh-me-ne, kh-em-ne. The Semitic 8 is she-moun, tha-man, tha-man-id &c. Bishari like Egyptian has the labial in 3, mih, as well as in 8, u-mhai.

A similar term was used in an archaic N. and E. Asian system in which the labial was the qualitative postfix and the sibilant the numeral root, primarily definitive and unit. In the archaic Semitico-Libyan system the labial does not appear to have been qualitative, but masculine. Sh-m, sh-mn &c. is the masc. form of the sibilant unit, 3 being very commonly a unit (properly 2, 1, but as in other terms one of the words

was early dropped for brevity's sake). The superadded *t* of Egyptian makes the term fem.

As a unit the sibilant recurs by itself in the Egyptian *she* 100, and *sha*, *sho* 1,000, and it is the initial element in the Semitic Egyptian 2, Semitic 3, Semitic Egyptian 6, 7 and 8, corresponding as we have seen with the Indo European *t*, *d* of 2, 3, 4, with the Indo European sibilant of 6, 7 and 8, and with the N. and E. Asian sibilant, dental and guttural unit of 1 and higher numbers. If the sibilant be considered as a prefix the root becomes the labial.

In 3 the same archaic form is preserved by Caucasian, *se-mi*, *sa mi*, *su-mi*, *ju mi* Lesgian *cha b go*, *sha-b-go*, *sha-mmba*, *ch'-ba*, Chinese *sa-mi*. The sibilant alone recurs in Circassian (*shi*) Korean, and Kamschatkan. The broad form of the dental recurs in Yeniseian with the postfix *dong-em*. The common double form of the Scythico-Chinese sibilant, dental and guttural unit occurs in the 3 of Ostiak, *chud-em*. In Scythic and allied N. and E. Asian languages the labial definitive and postfix occurs in the forms *men*, *man*, *mon*, *me*, *em*, *m* &c. as in the Semitic Egyptian 3 and 8.

The first element of the Egyptian term (*she*, *sha*) is the same as that of the Semitic (*tha*). The vowel is a variation from that which the particle has in Egyptian as a definitive *tu*, *su*, and in 4 *tu*, in 5 *tu*, in 6 *su* &c., and in 1,000 *sho*.

In the Nilotic languages generally the form in *o* or *u* is equally common with the Semitic in *a*, *i*, *e*. Thus the Berber 5 is *su-m-us*, the Dalla *bu-su-me* and the Darfur *us*. Bishari has also *su* as the unit for 5 in 6 (*su-ggoor*), 8 *su-mhai*, and as the unit for 10 *tu-mmun*. In several terms in the Galla group the same form is followed, to-ko 1, *su-dde* 3, *ko-n* 5, *tu-r-ba*, *t'-du-bah* 7, *su-ggal* 9, *ku-dqn*, *tu-ma* &c. 10. Gonga and Malagasy preserve the form in *i* *i-so*, Gonga in 5 *huch*, in 6 *ho-su*, in 8 *hos*, and in 9 *ho-du*. Even the more purely Semitic languages of Abyssinia have the Egyptian form in some terms. Amharic *hu-l-et* 2, *so-s-t* 3, *au-mi-st* 5, *su-bha-t* 7, Tigre *shu-ha-tti* 7, *sho-mun-ti* 8, Harragi *su-t*, *su-d* 8. It is needless to add examples from the more western African language. The connection between the African and the Semitic numerals is mainly through Himyaritic, and it is probable therefore that in the early form of the Himyaritic the definitive and unit was prevalent in the *u* and *o* forms, as well as in *a*, *i*, *e*, for the latter are found in Egyptian, Gonga and other African systems current along with the former. The modern representatives of Himyaritic preserve several examples of the *o*, *u* form of the definitive as a numeral element, both principal and accessory, *ta-ut* 1, *s-roh* 2, *ar-ba-ud* 4, (*arr-ut* Amharic), *kho-m-sa* 5 Mahrah, *shu-a* 7 Gara, *thu-ni* 8 Gara. Babylonian has it in *su-su* or *su-si*, 60, which is similar to the Amharic *so-s* 3. As a definitive the broad form is the Babylonian 3d pron *su-ra* masc., *su-at* fem., *su-nu*, *su-na* pl., *-su* poss. postf., which agree with the numeral form. In Hebrew and Arabic it is preserved with the aspirate consonant *hu*, *ho-wa*. In the Hebrew *zo-th* fem. "this", the sibilant is preserved. With these forms the Egyptian *su*, *tu*, Danakil *us* (3d pron masc.), Hausa *su* (pl 3d pron), Galla *tu*, *ku* (demonst.) agree. It appears therefore that the African forms of the unit in *u*, *o*, correspond with the Semitic-Libyan definitive and with an archaic form of the Semitic unit.

The variations in the vowel were probably to some extent flexional. U was an agentive or nominative postfix in the archaic Semitic system. It may also in some cases have been a softened form of the masculine postfix. I is feminine. It is also possessive. A plural power cannot of course be ascribed to the u or i of the definitive when used as 1.

B. *tha-la-th*, *sa-la-tha*, *sa-la-sa fem.*, *tha-la-tha tu masc.* Ar., *she-lo-shah masc.*, *sha-lo-sh fem.* Heb., (*si-la-sa*, 30, Babylonian), *te-la-ta masc.*, *te-la-t fem.* Chaldee, *se-le-ste* Tigre, *tha-th-it* Mahrah, *tha-k-it* Gara., *ke-ra-d* Berb., *k-ra-t* Shillah, (*so-s-ʔ* Amharic, *to-s-k* Nubian, *ta-tu*, *sa-tu* &c. &c. Zimbian &c.)

In *sa-la*, *she-lo* &c. the sibilant unit is followed by the liquid *la*, *lo* &c. Radically the compound may be the same as in 2,—*l*, *n*, *r*, being variations of the same definitive in the Semitico-African as in the Scythic systems. From the Humyaritic and Zimbian terms, and from the occurrence of such forms as *su-su* in higher Semitic numerals, it is clear that the radical term was a double or reduplicated unit, which varied from sibilant and dental to liquid forms, *s-s*, *t-t*, *r-r*, *l-l*, *s-d*, *s-r*, *s l*, *t-r*, *t-s*, *k-r* &c. The two forms, the sibilant or dental, and the liquid, with their combinations, must have co-existed from a very remote period.

The primary form *su-s*, *tha-th*, *tha-k* &c., connects itself with a very common double form of the unit in the Scythico-Chinese systems. The variation of the *s*, *t* &c. to *l*, *r* occurs in these N. Asiatic systems. In the Koriak 3, which is not reduplicated but is simply the sibilant unit, it varies from *sho*, *so*, to *ro* and *yo*. The Indo-European *t-ra* is a similar form to the Scythic *ko-r*, *ko-l*, *ha-r*, *ku-j*, *chu-d*, and to the Semitico-African forms in *t-r*, *t-l*, *k-r* &c. If the initial, in all these terms, be considered as a prefix, the simple unit remains the second and radical element, as in the remoter E. Asian systems, Chinese, Koriak &c. If both elements be considered radical, and this appears to be the correct view, the term is still merely one of the archaic forms of the unit and definitive. Comp. the demonstratives *zo-th* Heb. *fem.*, *i-za-to* Malagasy, *dza-ka*, *dza-li-ka ta-ka*, *ta-li-ka*, *fm.*, Ar., *thi-na* Berb. *f.*, *za-na* Galla *f.* The *l* form of the definitive, although common as a single particle in the Semitico-Libyan languages, occurs rarely with the preposed sibilant, the common form being *n*. The Hebrew *ha-lla-zeh m.*, *ha-lle-zu f.* "that", is an example of a demonstrative compound similar to the Semitic 3.

Four.

A. *ar-ba fem.*, *ar-ba-ta masc.* Arabic; *ar-ba-ah masc.*, *ar-ba fem.* Hebrew; *ar-be-a' masc.*, *ar-ba fem.* Chaldee (*ir-ba-ya* 40 Babylonian); *ar-ba-ul*, Mahrah. Gara; *ar-ba ti* Tigre; *ar-ba-ta* Gafat; *a-f-t*, *f-tu* Eg.; *ar-at*, *ar-ul* Amb.; *u-bah* Arkiko; *fou-so*, Tibbo, *fu-du*, *hu-du* &c. Hausa; *fu-lu* Kalabi; *hau-da*, *au-da* &c. Gongga; *a-fu-r* Saumali; *feré* Danakil; *e-fa-r*, *e-fa-tra*, *e-fa-d*, *e-fa-tu*, *e-fu-tsi* &c. Malagasy; Zimbian *wa-na*, *wa-n*, *ba-na* &c.

These are terms for 2, i. e. 2 dual. The Semitic collocation, it will be remarked, appears to follow that of the cognate Galla, Malagasy, Indo-

European and Scythic term for 2. The Egyptian, Sudanian, Galla and Malagasy collocation follows that of the more prevalent African 2 (Zimbrian, Nubian, Nigerian) which is also Scythico-Australian.

But as the labial is a postfix in the archaic Semitico-Libyan as in the archaic N. E. Asian, and the initial *ar* of *ar-ba* has the same elliptic appearance which *ar*, *an*, *al*, *ir*, *il* &c. have in the Scythic system, it is probable that *ar-ba*, like them, has lost its original initial consonant or prefix. The general Scythic affinities not only of Semitic but of all the other S. W. numeral systems of the Old World,—African, Euskarian, Caucasian and Indo-European—refer us to the Scythico-Chinese province for illustrations of the Semitic numerals, and an example of an allied term is probably extant in the Mongolian *dör-bo*, *dür-ban*, *tir-ba* &c. (in Turkish, with a dental postfix, *dor-t*, *dur-t*, *dwa-ta*, the *r* elided in the last as in the Indo-European *dwa*, 2), in Indo-European *cha-t-va-r-as*, with the sibilant postfix. The Mongolian *ar-ba*, 10, (also *ar-ban*), is a precisely similar term to the Semitic *ar-ba*, but although the form of the final consonant and the postfix doubtless identical glossarily as well as phonetically, the initial consonant of the root may have differed. The Mongolian term is probably a contracted unit like the Caucasian *ar*—, *er*—. The Semitic must be referred to a term for 4 or 2. The Georgian *r-wa*, *r-uo*, *ar-a*, *ovr*, 8, [4 dual], appears to be a similar elliptic term, and the Mingrelian *bar*, *bar-l* probably preserve its lost initial. In the other Caucasian languages it is also the labial in other Scythic terms, *m-itl-go*, *be-itl-gu*, *m-ik-go*, *me-i-ba*.

The Malagasy *e-far*, 4, and the corresponding African terms for 4 and 2 preserve the full form of the Semitic *ar*. The Danakil *mal-uh*, 2, has the labial postfix as in *ar-ba*, and the Malagasy *r-ua*, 2, is probably a similar contraction of *far-wa* or *faru-wa*, resembling the Georgian *r-wa*. The labial definitive postfix occurs concreted in the Semitic glossaries as well as in those of the allied Libyan languages, and Hebrew has it in the modern term for 2. (For the evidence of the wide prevalence of the Libyan labial in 2, 4, 7, (i. e. 5, 2), and 8, see African Numerals.) The Egyptian *f-tu*, the cognate African terms in *d*, *s* and *r*, and the existence of nearly all the varieties in Malagasy (*r*, *d*, *tu*, *tši*), corroborate the inference drawn from the Semitico-African terms for 3, that, in the archaic Semitico-Libyan, as in the Scythic, definitive and numeral system, the definitive and unit in *l*, *r*, *u* was merely a variation of that in *s*, *t*, *k*. Although the liquid *r*, *l*, *u* was early combined in the Asiatic systems with other definitives (labial, dental &c.) in 2, 4 &c. it appears to be the essential element in the Sythic, Semitic and African systems.

Five.

A. *kha-m-sa*, *kha-m-s fem.*, *kha-m-sa-ta masc.* Arabic, *kha-m-ish-shah masc.* *kha-m-esh fem.* Hebrew, *kha-m-sha masc.* *kha-m-esh fem.* Chaldean, *kha-m-is-ti* Babylonian, *kh-ish* Gara. *kho-m-as* Mahrah, *a-m-is-t*, *au-m-is-t* Amharic, *au-m-ish-te* Tigre, *su-m-us* Berber, *su-m-os-t* Shillah, *tu-m-at* Timani, *bu-su-nie* Dolla, *a-m-us* Arkiko.

This term is probably a unit as in the African and Scythic systems. Radically *kha-m* is identical with the *sha-me*, *sho-m*, *tha-man* &c. of the Egyptian 3 and the Egypto-Semitic 3 of 8. But it is remarkable that in the proper Semitic languages the unit root takes the guttural

form as in the Semitic 1 (akh—), while in 6, 7 and 8 it returns to the sibilant form it preserves in 2 and 3.

The older African terms—the Berber, Shillah, Timani, Dalla—retain the sibilant and dental form of the initial unit, and the Egyptian (B) has it without the labial. [See African Numerals, 3, 5.]

The term is similar to the common Scythic unit in k, t, s &c. which appears in 1, 3, 5 and higher numbers. Examples of its occurrence in 5 are *ko-m-lch* Kamschatkan, which reappears in the sibilant form in the Samoiede *so-mba-lach*, *so-bo-riggo*, *sa-m-lik*, and in the dental form in the Mongolian *ta-bun*, *ta-bu*. The Kamschatkan and Samoiede terms afford examples like the Semitic of a secondary postfix, and show that in these languages also the labial had lost its primary qualitative force and merged in the root when the native postfix was superadded.

B. The Egyptian *tu*, *tiu*, *tie*, in 50 *tainu*, *teui*, was probably a native unit derived from the dental definitive and demonstrative (comp. *en-tu-f* "he," *en-tu-s* "she"), *su* "he &c." *ta*, *ti*, *te* "this" fem., *tai* "this," *tui* relative fem.) In the analogous form *su* it was probably the oldest form of the sibilant, dental and guttural unit. It is still preserved in the Babylonian 60, *su-su* or *su-si*, and in the initial element of the Semitic 2, 3, 6, 7 and 8 the sibilant also keeps its place. In the older African forms of the Semitic 5 (A) it is also retained, as we have seen, in the forms *su* and *tu*.

Six.

6 is simply the unit—for 5, 1 - in the prevalent sibilant form. Egyptian preserves the labial postfix of the archaic mother system *s-ou* or *s-ov*, *s-oo*, *s-o*, but in 60 has the pure unit or definitive *se* (as in 100 *she*, and 1000 *sha*). The Euskarian *sei* is the same term. Semitic has *si*, *si-ta*, *se-te* fem., *si-ta-ta* masc. Arabic, *shi-shah* masc, *she-sh* fem. Hebrew, *shi-ta* masc., *she-t* fem. Chaldee, *sha-t-id* Gara, *ha-t-id* Mahrah, *se-d-ist* Amh., *se-d-ishte* Tigre, *se-d-is* Berb., *su-th* Shillah. These terms are the same as the Indo-European *sha-t*, *sha-sh* &c. and the Scythic double forms of the sibilant, dental and guttural unit in 6 (*chu-t*, *ku-t* &c.), 7 (*sis* &c.), 100 &c. The Himyaritic and derivative African forms shew that the second sibilant or dental is not a secondary postfix, and that the Semitic term was immediately derived from the double unit. This form was an archaic Semitico-Libyan term for 1 probably feminine, but as it is best preserved in a ternary series (3, 6, 9), the Semitic 6 may be 3 dual.

Seven.

sa-ba, *sa-be* fem. *sa-ba-ta* masc. Ar., *shi-bah* masc. *she-ba* fem. Hebr., *shi-bea* masc. *she-ba* fem. Chald., *ha-ba-id* Mahrah, *sh-ua* Gara, *shu-ba-te* Tigre, *se-ba-t*, *su-bha-t* Amharic, *se-l-ech*, Eg., *se-t*, *sa-d* Berb. *shash-f* Eg., *zos-pi* Eusk. This is the Indo-European *sa-p-t* and Ugrian *sa-b-et*, &c. in which the basis *sa-p*, *sa-b*, *si-m* &c. is the sibilant unit, with the archaic labial qualitative postfix. The Egyptian and Euskarian unit preserves the double form found in the Ugrian *sis-im* &c. in the Semitic and Indo-European 6, and in several African terms. The term, in its original form, was 6, 1. See Indo-European and Scythic Numerals. A similar form of the unit is preserved in the Egyptian 3 and Semitico-Egyptian 8.

Eight.

tha-ma-n, sha-ma-n *fem*, tha-ma-ni-ta *masc* Arabic, sha-mo-n-ah *masc*, she-mon-eh *fem* Hebrew, te-ma-n-ja *masc.*, ta-m-n-e *fem* Chaldee, tha-man-id Mahrah, thu-m Gara, shu-mun-te Tigre, se-min-t Amh., sh-men Eg., t-em Berb., t-emp-t Shillah. This term is evidently not formed from 2 or 8, but from 3 in the Egyptian form (i. e. 5, 3, as in all the African and many other systems).

Nine.

ti-s', ti-sa' *fem*. ti-sa-ta *masc*. Arabic, te-sha *fem*. ti-she-ah *masc*. Hebrew, Chaldee, sa-id Mahrah, Gara, ze-tti Amh., ze-te-in Harragi, za-te-na Gafat, tish-ate Tigre, p-sit, p-sis Eg. (p-is in 90), dza Berb., tzaa Shillah. This is a Scythic form of the unit, occurring in the Kamschatkan dys of 1, Hungarian tiz 10 &c., and in the Mongolian dsi-sun 9, (1, 10). It is also the Semitic 6 and 3, so that 9 is probably 3 trinal. But as the African terms are generally 5, 4, it is possible that the Semitic 9 is the term for 4 found in several African languages, and recurring in 9 in forms similar to the Semitic. Agau si-za, sa-dja, se-dza 4, tssā-cha, se-ssa, se-s-ta 9, Gongga ach-ech 4, dje-ta, yi-dea 9; Shangalla zaa-cha, an-za-cha 4, sa-sa 9. The full terms are preserved in some Zimbrian systems. Makua dialects ma-che-che, mu-tye-tye, i-tye-tye 4, ma-tanu na ui ma-che-che, mzana-m-tye-tye, nhyanu na i-tye-tye, 5 and 4 (9). From these terms it might be inferred that the Semitic 9 was also a term for 4, but it has no resemblance to the current 4 either in its contracted or full form (ar-ba, war-ba &c). It appears to be related however to the current term for 2, and was probably one of the forms in use when the numerals varied regularly with the gender of the noun. The Hebrew *fem*. she-ta-yim is a similar term. In the Semitic terms for 3 a similar variation occurs, Arabic, Hebrew &c. having tha-la-th, she-lo-sh, while Mahrah and Gara substitute the dental and guttural for the liquid tha th it, tha k it, and a like form appears to have existed in Babylonian su-su 60, with which the Amharic 3, so-s, is cognate. If the Semitic 9 be considered as 3 trinal its resemblance to terms for 6 and 3 is explained. But even in the current terms for 2 and 3 we have found a radical resemblance, so that a resemblance between 9 and 3 or 6 does not oppose but rather confirms an identification of 9 as ultimately 2 dual. Whether 9 be 3 trinal or 4 it agrees radically both with 3 and 4 because these agree radically with each other.

Ten.

A. ash-ar, ash-ir *fem*. ash ara-ta *fem*. Ar., as-ār-a *masc.*, es er *fem*. Heb., as-ra *masc.*, as-ar *fem* Chaldee, al-ish-r-id Mahrah, ish-r-id Gara, as-ur-te Tigre, as-ra, as-ir Amh.

B. men-t, me-t, mn-t Eg. This is the Scythic labial unit and postfix, occurring as 10 in the same form in Tungusian menz (in 1 min). But the Egyptian term is evidently the second of the definitives found in 8 and 3 and here divested of the initial sibilant unit, which it retains in some other African forms [See African Numerals, 10 B. b.]

APPENDIX TO SEC. 6 OF CHAP. V., PART II.

B

SEMITICO-AFRICAN NUMERALS.

One.

A (a) wa-hi-*d*, wa-hi-*du*, a-ha-*d*, a-kha-*d masc.* wa-hi-*da-ta*, a-kha-*di fem.* Arabic, e-khad *masc.*, a-kha-*t fem.* Hebrew, khad *masc*, kha-*da fem.* Chaldee, hha-*di*, a-*dde* Tigre, hha-*d* Harragi, and Amharic. * The root in these forms is hi, ha, kha, a, variations of the Semitico-Libyan definitive, and the other variations, si, ti &c., were doubtless archaically current as the unit

(b). ta-*ut* Mahrah, Gara, ta-*t* Curia Muria. From the analogy of ar-*ba-ud*, 4, this analysis is clearly the correct one. If the root has no vestige of the labial, it is the Semitico-Libyan dental definitive, also occurring in the sibilant form in the higher Semitico-Egyptian numerals, and in the dental form in the Egyptian 5.

(c). uo-*t* (or u-*t*) Egyptian, (also u-*ai*, u-*a*, u-*ei*, u-*i*, comp. the demonstrative ai, ei, e, i, in pai, tai, nai &c.)

If the guttural and aspirate in (a) be the root (hi, kha, ha) and the vowel or labial (wa, a, e) a mere augment or prefix, it must be ranked with the Himyaritic ta and Egyptian t, because in Semitico-Libyan the aspirate and guttural definitive and unit passes into the sibilant and dental. In the Semitic 5 the unit recurs in the aspirate guttural form. In the allied Scythic systems the guttural, dental, sibilant &c. appears to have had an independent definitive power even when postfixed to the labial.

In Africa the aspirate, sibilant, dental and guttural definitive also occurs as the unit in accordance with what we have indicated as its archaic Semitic range. Even in the same group the consonant assumes different forms. Thus in the Gonga group we have.—

(d). i-*ta*, i-*so*, i-*sta*, i-*ka*, e-*koe*. In this double form the final element is not to be considered as a postfix, because the definitive itself occurs in the same double form, and the initial element rather than the final appears to be a servile. In the Egyptian 3d pronoun, en-*tu-f masc.* en-*tu-s, en-te-s, fem.*, the nasal is prefixual as in the 2d and 1st pronouns, and the dental is the radical definitive as in ta, ti, te, "the", *fem.* But in definitives and units the prefix being itself definitive both elements may be considered radical. The unit is generally not a single definitive but a double or intensive one, being a numeral application of a demonstrative or 3d pronoun in which two definitives are usually combined. The recurrence of the dental definitive, variable to the guttural, as a postfix in higher numbers in most of the Nilotic languages does not appear to reduce it to a mere postfix in 1 and raise the initial element to the character of the sole unit root.

In some of the other Nilotic languages the initial element assumes its full nasal form as in the pronouns. Danakil in-*ike*, Shiho in-*ek*, Bisharye eng-*at* or eng-*at*, Tumali in-*ta*. These are clear vestiges, found from the Red Sea to the western portion of the Nilotic province,

* In App. A the vowel of the root is improperly separated from it and carried to the postfix.

of the ancient use of the double definitive as the unit. The Darfur *d-iñ* is a variation of the same form or of the cognate (*d*). The Malagasy *i-si*, *i-so*, *i-si* corresponds with the Gonga sibilant form and the Semitic *hi*, *ta* &c. In Asonesia several varieties are preserved, *e-sa*, *i-se*, *a-si*, *a-sa*, *i-cha*, *ji*, *i-ta*, *ta*, *ta-si*, *ta-bi*, *ta-ka*, *sa-da*, *sa-ra*, *se-ra*, *si-ti*, *me-isa*, *ma-isa*, *m-esi*, *sa-mo-si* &c. Some of the Nigerian languages retain the nasal prefix in higher numbers, and prove that it was prefixed to the numerals throughout in some systems. Wolof has it in 2, 3 and 4. † Some other Nigerian systems had the labial prefix. It is preserved in some of the Ashanti and Gabun dialects (*bi*, *mi*, *mie*, *ba* &c.) In the Zimbrian systems substantival prefixes are used in the substantive form of the numerals, the possessive rendering them ordinal. When used as cardinals or qualitatives they take the definitive prefix of the connected substantive. Thus in Kosah 1 has the substantive form *isi-nye* (so *isi-bini* 2, *isi-tatu* 3 &c.) and the qualitative forms *um-nye*, *li-nye*, *in-nye*, *si-nye*, *lu-nye*, *bu-nye*, *ku-nye*, and higher numbers take the plurals *aba-*, *uma-*, *e-zin-*, *ezi-*, *emi-*. In some of the published lists the prefixes are confounded with the roots, particularly in the common contracted forms of the prefix as in *muye* 1, *mbini* 2, *ntatu* 3 &c. In other cases the consonant of the prefix is eluded and the vowel only preserved. When it is recollected that in the archaic Semitico-Libyan formation definitives which in their variations embraced the whole range of consonants, might be used either as prefixes or postfixes, and that both are found in many words, the difficulty of analysing and comparing the Semitico-African systems will be understood. It is only where a considerable number of concurring facts are obtainable that satisfactory conclusions can be arrived at.

The common Zimbrian term appears to preserve the same form of the unit, with the labial definitive as the initial, although the latter has become a substantive part of the root. The most common form of the ultimate root is *si*, variable to *ji*, *yi* &c. and corresponding with the Malagasy *si* and Arabic *hi*, [comp. the Eg., Galla and Malagasy def. *si*, *zi*] but forms in *a* and *o* also occur as in Semitic, Gonga and Malagasy. In some languages *s* become *t* and in others *r* or *l*. The labial prefixal element has generally the form *mo*. The same combination is found in other formations, and whether both the definitives are to be considered as being primarily a def. compound used as the numeral, or a merely servile function is to be ascribed to the postfix or prefix, must be doubtful in most cases, the relative position of the principal and accessory definitives having varied even in the same formation. If the original form of *A* were *wa-bi*, *wa-kha* &c., it would follow that all the Semitico-Libyan forms of the sibilant, aspirate, dental and guttural definitive and unit might at one time prefix the labial. But in the archaic non-concreted condition of the glossary it is clear that each definitive had a separate currency and was capable of being used as the unit. The combinations

† Mr Koelle's *Polyglotta Africana*, received since the text was written, enables me to make some additions. He gives *ya* as the Woloff prefix. In Bullom *ni*-(euph. *nin*-, *nim*-) is prefixed to the 5 simple numerals.

indicated special distinctions, sexual &c. The replacement of *s*, *t*, by *r* or *l*, found in the Arabic ordinal 1, takes place in the Zimbrian cardinal 1. This tends to the conclusion that *wal*, *war*, *wat*, *wah*, *wak* or *pak*, *bas*, *mos* &c. are all variations of one archaic term, whether simple or compound. A similar range of variation occurs in those forms of the *-cythic* unit which have the labial prefix. From the general structural analogies of Semitic in its most archaic stage and of Zimbrian in its existing one, it is probable that in *mo-si*, *mo-ri*, as in the Semitic *wa-bi*, *wa-li*, the labial was primarily accessory. In form it corresponds with the Egyptian *uo* of *uo-t=wo-t* [see App I, One B]. The following are examples of the Zimbrian term,—*mo-ja* Suaheli, *u-mu-e* (contracted) *Ki-Kamba*, *mo-dya* Makua, *yi-mo*, *lu-mo* Nudjana, (probably contracted forms with substantive prefixes, similar to those taken in other Zimbrian languages when the numerals are used as qualitatives), *mo-yi*, *mo-ji* Makonde, *mo-si* Takwani, *po-si* Masena, *Sotola*, *mo-esi* Sechuana, *mo-si* Bengwena, *Kongo*, *Kambiinda*, *mo-shi* Angola, *i-mo* Mundjola. Yoruba, which in one dialect uses the Zimbrian labial prefix with its numerals, has the same form of the unit in 9 (1 from 10), *ma-i-so*.

Considerable variations are found †. The prefix alone is used in some languages, and in others the root changes to *t*, *k*, *r*, *l*; *o-bo* Kuafi, *bo* Binin, *mo* Camancons &c.—; *a-so*, *a-to-k* Timbuktu, *wo-to*, *uo-to* Bongo &c., *va-ta* Panwe, *pa-ka* Batauga; [*ba-r* Euskarian.] § In the Mpongwe, by the common change of *s* to *r*, *ri* takes the place of *si*, *ma-ri*. The Panwe *va-ta* 1, becomes *va-la* in 6 (5, 1).

Although I have placed the Kuafi with the Binin and Camancon terms, I do not infer that the latter were derived from the former. They are probably contractions of one of the varieties found in Nigeria, *wo-r*, *wo-to* &c. The Kuafi itself must be considered as a remnant of a once prevalent Nilotic term from which the Nigerian were derived. The full E Nilotic term is probably preserved in the Agan *wal-ta*, *wol-ta* 6, and in the allied Nubian and Nigerian terms, corresponding with the Semitic *wal*.

In higher numbers the labial is common. It does not occur in the second term of the unit series, 3 (save as a postfix.) In Africa it was an archaic term for 5, (the 1 tale in the quinary system), under the forms *pona*, *puna*, *fung*, *mon* [5. G] In some Nilotic and Nigerian

† In Koelle's Zimbrian vocabularies the common form of the second element is *si*, *shi*, *s*, *sh*, *zi*, *z*, *hi* on the western side. In the S E both the *i* and *a* forms occur, *dshi*, *tsa*, *tsa*, *za*, *ta*, *a*. In the West, Musentanadu has *ko si*, which may be an archaic variety preserving the root with the guttural in place of the labial prefix. But it is probably a contraction of the form *ki-mosi* (comp the Mimboma *bozi*, *ki-mezi*). In the Isuwu group (Cameroons &c.) *mo re* occurs, but the labial generally appears alone, *mo*, *i mo*, *i wo*. In Basoko the sibilant is replaced by the dental, *i wo te*. A similar change of the postfix is found further south in Kabenda *dao-s* (comp *mo si*, *mo s*, *ko si*). The Calabar dialects have similar forms *dai dai*, *dai t*, *e dai*. In Baka and Kamuku the sibilant changes to the aspirate *hi*, *hia*, the form thus returning to the Arabic.

§ Koelle gives *mo-ko* Undaga, *eo-ko* Murundo, *mbo-g* Ndob, *to g* Mfut, *po-g* Ngoten, *e ko* Ashanti.

terms for 6 it occurs as 1 (5, 1), under the form *wal*, *wol*, *far*, *wor*, *fa*, *va*, *wa* &c. In 9 it occurs for 10 in Tumali, Masena, Sofala and the Kongo group. As 10 it is found in Nubian, Berber, Shillah, Tibbo, and in several Nigerian languages. In the dual series it is still more common. The Semitic and Nubian *wal*, *war* is the most prevalent term for 2 under the forms *bar*, *mal*, *vali*, *vili* &c. As 2 dual it occurs in 4 in Semitic (contracted to *ar*), in most of the Nilotic languages and Malagasy, *bahr*, *far*, *fur*, *fud*, *fut*, *fus* &c. In 7 it represents 2 (5, 2) in Bishari. In 8 it occurs (as 4 dual) in Danakil and Shiho, *bahr*, *bahara*, and in Malagasy, *valu*.

(e) Other varieties are found in the Galla *ta-ko*, *ta-k*, *to-ko*, *kow*; in the Haussa group *dai-ak*, *dai-a*, *de-ah*, *nai-a*, *da*. Probably the Darfur *d-ik* is to be referred to this variety rather than to (d) In some of the Sudanian and Nigerian systems the dental and guttural occur separately or combined, and in some cases reverse the Galla order. Ga-di Kallabi, ki-de Begharmi (comp Bish. *gur*, *gir*). Mendi, Pesa and Kosa *e-ta*, *tah*, *i-ta*. [Gonga forms] Kru ku, Fulah go, Fanti *e-ku*, *mi-e-ku*, Akin *bi-a-kun*, Amina *a-kun*, Tambo *ka-ki*, Moko *ka*, Karaba *ke-t*, Karapay *e-di*, Yoruba *o-k'ka*, *o-ko* [Galla *to-ko*]. The nasal occurs alone in the Yoruba *ine* [Shiho *in-ek*] and Ibo *na* [adjacent Hausa group *nai-a*, *Kashna*].

The Hottentot *kni*, *koi-se*, *ui*, resembles the Gonga *e-koe*. Another Hottentot term *itswi* [= *itsui*, *i-tsoi*] also resembles the Gonga sibilant forms. The double vowels of several of these forms, *ai*, *ui* &c. are ancient Libyan (comp. the Eg def. and units).

(f) In the Agau group *lo*, *la*, appears as the root, *lo-wa* Waag Agau, *la-ghu* Agaumider, *la-gha* Falasha. The Bornui *la-ska*, *la-ka*, and the Malagasy *i-rai-ka*, *re-k*, are similar terms to the Agau *la-gha*.

In 6 (5, 1) the *r* becomes *n* (*ene*, *en* &c.) In the Dankali-Kuafi 6 the unit has a similar form (*leh* &c.) In Malagasy it is also preserved as a definitive, corresponding with the Semitic and African *le*, *re*, *la*, *na*, *al* &c. In the Mpongwe *ma-ri* it takes the place of the common Zimbani *si*. The Zulu and Kosah *nye*, *l*, is probably the same root. It occurs in the Mpongwe *ina* of *ina-gomi* 9. In 9, (1, 10) the form *la-ka* &c. occurs in Bornui, Sangsadi and Mazambiki ¶

(g) The Bornui *ti-lu* has the same form [Agau *lo*] with the dental prefix, a reversal of the ordinary collocation, similar to *ki-de*, *ga-di*, *ke-t* The same collocation, with the guttural in place of the dental, is found in the Bishari *gu-r* of *sugoor* 6 (5, 1) and the Mandingo *ki-*

¶ Several liquid forms are given by Koelle, e. g. *wo-no* Okam, *ke bo-ne* Nki, *inya* Kambali, *unyi* Yagwa, *ko n* Akurakura, *wi-an* Wolof, *fa-nod* Fulup, *a nod* Filham, *ba-ne*, *va-ne* Gadsaga, *pu-lolo* Bola, *pu-lalan* Sereres, *pu lon*, *o lon* Popel, *pa ini* Padsade, *pe-le* Kisi, *ke-le*, *ke-len*, *ke-ren*, *ke den*, *i da*, *i ra* Mandingo Group, *pi n*, Baga, Timne, *bu-l* Bulom, *Mampa*, *do* Grebo Group, *de* Dahomey Gr., *e-ni*, *e-ne*, *e-li*, *e-ne*, *me-ne*, *i*, *Mampa*, *do* Grebo Group, *de* Dahomey Gr., *e-ni*, *e-ne*, *e-li*, *e-ne*, *me-ne*, *i*, *nye* Yoruba Gr., *ka lo* Kasm. *ka ni*, *ka-n* Udeo, *we-ni*, *ne ni*, *e-nyi* gha-ni, *gma-ni*, *gma-nyi* o *nyi*, &c. Nufi Gr., *pa-le* Mandara, *bala* Ebe (Nu. fi Gr.) The liquid appears in these examples with variable prefixes *wo-*, *bo-*, *bu-*, *ba-*, *pa-*, *we-*, *me-*, &c.; *ka-*, *ke-*, *i-*, *e-* &c., like the sibilant and dental root. They afford strong evidence that the *ri*, *li*, *ni*, *nyi*, *no*, *lo*, &c. are but variations of the same root.

The form of the prefix serves to some extent to trace lines of special con-

ling, ke-ling, kering, ku-le.

(h.) The Sechuana *monga*—he-la,—in 8 and 9 he-ra (representing 10)—is a variety of the Semitic 10 ash-ar, as-ra &c. In Semitic it is still pronominal and as a unit occurs in 3. The form is cognate with ke-ling &c., the aspirate, sibilant and guttural being variations of the same definitive and unit. Some of the Malayu—Polynesian terms appear to be cognate (se-ra, sa-ra &c.).

(h.) Double sibilant or aspirate forms are not now found in 1. Is the Gonga hu-su pona, ho-su puna, the first term hu-su, ho-su is 1. The Egyptian sha-sh-f 7 (6, 1) is another instance of its use as the unit. ||

In most of the higher numbers the guttural unit recurs. It is common as 5. In Nufi it is prefixed even to the numbers below 5, (o-gu-bar 2, o-gu-tar 3 &c.). The other varieties, dental, sibilant, nasal and liquid also recur, and in some cases with postfixes not now preserved in terms for 1, All the varieties occur with the labial postfix in the unit series. Thus the form sa-ba, sa-ma, su-mon, sho-m, shi-min, si-vi, se-min &c. is found in 3, 5, 6, (5, 1), 7 (in the 6, 1 terms), 8 (in quinary terms 5 3, in which 3 is the unit), and 9. The dental and guttural varieties of the same term are also common, particularly in 5 and 10. These compounds favour the inference that the labial had the same power whether used by itself, or as a prefix or postfix, and that the variation in the relative position of the two elements in archaic terms is a fact of the same kind as the occurrence of the definitive both as a postfix and prefix in nouns.

The reduplicated form of the pure sibilant and dental is found in higher numbers. It is common in the ternary series 3, 6, 9, 30, 60 &c. and occurs as the unit in 5. Egyptian has it in 7 (6, 1). Possibly the reduplication distinguished 3 from 1, but as the terms for 1 were either double or bi-consonantal, and as the double 3 varies to forms similar to 1 (e g. ti-lu 3 Malagaay, ti-lu 1 Bornui; ke-s 3 Gonga, ke-t 1 Karaba; tha-k 3 Gara, ta-k 1 Galla;) it is probable that such forms as tha-th, su-s &c. were archaic forms of 1. Although not found in 2 they occur in 4. If the Himyaritic ta-ut, ta-t, does not contain a secondary postfix in its-ut,-t, it is identical with the tha-th &c. of 3. Similar forms of

nection in the crowd of varieties which our African collections now present, The Semitic affects *a* and *e*, *wa* lu, *wa* li *a* kh, *e* kh &c.; and the Berber, Nubian, Sudanian and Western forms in *wa*—, *ba*—, *ma*— are probably connected with it, e. g. *wa*-n Berb., *wa* r Nubian, *ba* l Bornui, *pa* le Mandara, *ba* ne, *wa*-ne Gadsaga, *ba* la, *g* *ba* ni, *g*-*ma* ni Nufe Gr., *fa* no d Felup. The Zimbiana affects *o* and most of the *o* and *u* forms, so abundant in Western Africa, appear to be more immediately connected with it. In some places the line of meeting of the two forms may be observed. Thus in the central or Teadian province, Karekare like Mandara has *a*, but Pika, immediately to the south and probably within the influence of the Zimbiana languages of the Chadda basin has *o*, although the numeral roots are the same. Karekare *wa*-di, Pika *mo* di, so 2 *be* lu, *bo* lu; in the Arabic of Adirar *wa*— is replaced by *we*— (comp. the Hebrew *e*—) and is used in 2 also, *we* hi-d, *we*-he-d 1, *we* s ne 2.

|| The Gara and Mahrah ta-ut, Curia Muria ta-t, are not reduplicated forms if the final —*ut*, —*t*. be servile. Mr. Koelle's *dei*.*dei* Udoma and Mbofon, *dee*-t Eafen, and perhaps *dso*.s Kabenda, appear to be proper reduplications.

the unit occur in Caucasian (1 &c.), Euskarian (7), Indo-European (6), and N. and E. Asian.

B. (a). *a-wa-l masc a-wa-l-i fem.* Arabic, "first". It is used only as an ordinal, but it appears to have been an archaic Semitic cardinal, not only from its wide prevalence and great importance in the derivative numeral systems of Africa, but from its preservation in a contracted form in the Semitic 4. In Africa the liquids l, r, n, d, are current as l in several forms, and as they pass into those in s, h, t, k, it is probable that in archaic Semitic also wa-l, wa-li &c. was only a variation of wa-si, wa-hi &c. War-um, wa-r-ha, be-r-a, u-er-a Nub., ba-l Bornui, wa-r-mi Shabbe, (also prefixally in 2, 3, 4 hoos-war-) wor-mi Nufi, mo-r-i Rungo, bu-l Bulum, wa-n, ua-n Berber (ian in 11, 21 &c.), wa ni Fetu, pi-li Kissi, pi-n Timmani, ba-ne Serakoli. In E. Nilotic this term is preserved as an element in the Agan 6 wal te, wol-ta. (So in Nigeria woro 6, Julunkun, Soko).

Foreign affinities.

A, in all its varieties, has N. and E. Asian representatives (Scythic &c.)

In the adjacent Caucasian province the sibilant form of the definitive, with different postfixes, is the most common unit, es-gu Georgian, za, zo, ho-s, zi-s, za-ba, se-w Lazian, tza Mingrelian, se Circassian, se-ka, se-ke, Awari.

(a. b.) is the simple definitive found in the dental, as in the sibilant and other forms, in the N. and E. Asian systems and in the Caucasian. The Semitic term resembles the Indo-European *ek-as* and the cognate Ugrian terms, some of which retain the initial labial (ve-ike, va-ikse &c.), while others have dropped it as in Indo-European and most of the Semitic forms.

(c.) in some of its forms is similar to those N. Asian terms in which the root or initial element is in n. Mongolian ni-ke, ne-ka, ne-ge, Koriak ing-shin &c.

(d.) These forms are only varieties of (b) and have the same Asiatic affinities. The Galla-Hausa ra-k, to-ko, dai-ak, and Darfur d-ik resemble the Ugrian ot-yk, yt-yk &c

(e.) The liquid l or r is not found as the unit in l itself in the N. and E. Asian systems, but it occurs in higher numbers, and it is distinctly preserved in Ugrian, Samoiede, and Mongolian terms for 10. The Vogulian la-ga, la-wa, lo-u, lu, Lap lo-ke, Samoiede lu-ze-yu lu-ste-yu are close representatives of the Agau-Bornui la-gha, la-ka, la-ska, lo-wa.

(f.) Similar varieties of the unit occur in the Scythic systems. Mongolian has dor, der, dol, dal, tir &c. in some of its higher terms. See 5.

The Asonesian terms are chiefly Malagasy, but some appear to have closer representatives in those African systems with which Malagasy is connected. The most prevalent terms are isa, ise, ese, asa, icha, ita, ida &c; tahi, tasi, taha, tai, ta; tika, tik, titu, tot &c; satu, hatu, siti, sada, sara &c &c.

B. The Semitic-African forms resemble the Scythic labial unit in the Turkish form ber, bir, pra, in which the sibilant postfix of the more common form (bish, vis, wis &c.) becomes r. The labial is not now the most prevalent unit in the numeral systems of N and E. Asia, but it is retained in 1 by some languages—Ugrian, Tungusian, Turkish and

Japanese,—and it occurs in others in 5, 10, 1000 &c. The postfix has all the variations that occur in Africa. Examples of -r and -s have been given in the above forms. The Tuugusian 1 and 10 has *min*, *men*, *mer*, *mon*, and the same definitive occurs as a numeral postfix in those forms and in others such as *man*, *ban* &c. resembling African units: The African terms which have -t, -k are similar to the Ugrian *va-ik*, *v ek*, *v it*, *b-et*, *b-at* &c.

The Dravido-Australian labial unit is cognate with the N. and E. Asiatic and with the Semitico-African, being identical in form with the latter.

The Zimbian terms, if the labial be radical, resemble the Scythic *bish*, *mis* &c., but they have still closer representatives in Indonesia (Papuan, E. Indonesian) *sa mo-si*, *ma-isa*, *me-isa*, *me-si*). In these forms the labial is undoubtedly prefixal.

Observations on the Distribution of the terms.

From the forms and combinations of the definitive and numeral elements common to Semitic with African languages, it is clear that in the latter they are not in general, to be considered as derivatives from the former in its present or historical condition. The cognate African languages are, like the Semitic, branches of an archaic formation which must at one time have been represented in S. W. Asia by dialects more akin to the African than to the historical Semitic. When the archaic Semitic or Semitico-Libyan formation first spread to Africa it must have had several forms of the unit, and one of the most important appears to have been the labial. There is no clear evidence that it preceded the sibilant. It is more probable, from their distribution in Africa, that both were used by the Semitic dialects that were first transplanted into that region. The sibilant, dental and guttural was either from the first the more important term or it early became so. Probably the labial was the masculine and the other the feminine def. and unit. If the labial was a common prefix or initial element, both may have been imported from the first in combination.

Two.

A. *ith-na-ni*, *ath-in-an*, *is-in-in*, *s-n-in* masc., *ath-in-ta-n* fem. Ar., *she-ne*, *she-ne-m*, *she-na-yim*, masc., *she-ta-yim*, fem. Heb., *s-roh* Mahrah, *te-r-en* masc., *ta-r-t-t-en* fem. Chald. (*s-an-ra* or *sa-n-na* 20 Babylonian), *s-nau*, *s-en-te*, *s-nu-ti*, *s-nou-s* Eg. Copt., *the-na-t*, Berb., (*si-n* in 12, 20 &c.), *si-n* Shillab, *ti-ng* Bullum, *s-il-il* Kalahi, *ki-le-te*, *khe-li-te*, *qui-le-t*, *hu-l-et*, Abyss., *he-li-ta* Galat, *ki-lli* Arkiko. (See Semitic, p. 2.)

The liquid *na*, *in*, *ne*, *roh*, *le*, *li*, *il* of these forms appears to be the essential element.

The Ashanti *mi-e-nu*, Fanti *e-bi-e-n*, Afutu *e-nu-e*, Amina and Yoruba *e-nu*, are probably, with the Bornui *en-di*, *in-di*, of Semitico-Libyan derivation, with the initial *t*, *th*, *h*, *k*, elided. Comp. Egyptian *s-en-te*, *s-nu-ti*, Berber *th-en-at*, Shillab *s-in*. The anomalous Fulah *di-di* is obviously a variation of the Bornui *in-di*, (Eg. *s-en-te*)*

* Koelle's Voc. supplies the following African variations of Arabic, *te-ne-n* Soa, *sa-ni* Wadai, *we-s-ne*, *e-t-ne* Adirar, *te-ne-ni*, *se-ne-ni* Beran. The Kandin *di-si-n* (*di-an*!), Bode *se-li-n*, Ngodsin *si-li-n* are forms similar to the Shillab, Kalahi and Arkiko, and forming with them a group originating in one special and older diffusion of an Arabic form.

In the Kongo-Angola *kia-di*, *ia-li*, *ku-ie*, *so-li*, *so-le*, *ya-ri* [comp. *va-li*, *mi-li*, *mr-o-li*, B.] the liquid element is combined with different prefixes. They suggest a connection, probably remote, with the Semitic-Abyssinian forms, *kilete*, *kelife*, *quilet*, *hulet*, *Gafat helitz*, *Arki-ko killi*. In these forms the initial consonant varies from the primary *s*, (Semitic, Egyptian) to *th*, *h* and *k*; and the second consonant from *n* (Arabic, Egyptian, Berber) to *r* (Gara, Mahrab) and *l* (Abyss. *Kallahi*). The final *et*, *ta*, *ti*, *t* &c. is the common Semitic Libyan definite postfix. (*f-m*.) It will be remarked that none of the archaic African terms take the final *n* of the Semitic. If the Zimbian *k* (B) is the 2d element of the Semitico-African root,—of which there appears to be no doubt—its combination with a labial prefix, and the absence of the dental or liquid postfix, shows that it was not borrowed from the proper concreted Semitic system, but from Semitic in its pre-agglutinate era when the postfixes were free,—from another Semitic system,—or from a common archaic source. Other instances of a similar kind occur, in which the Semitic root is either bare, or has an African prefix or postfix. In another place reasons are offered for considering that the present Semitic term replaced a more archaic one in which the labial, and not the sibilant, definitive and unit was the initial element. Both forms may have prevailed at one time in different Semitic languages. At all events it is probable that the labial form was that of the Semitic system which first spread into Africa and from which both the Nilotico-Nigerian and the Zimbian labial terms have been derived.

In the Galla 7 (5, 2) the Semitic term occurs in a form similar to the Chaldee, but with the archaic labial postfix *to-r-ba*, *to-r-b*. The Nubian *ko-lo-du*, Bornui *tu-l-ur* resemble some of the other forms of 2 given above.

B. (a) The prevalent African term for 2 is the labial, with a liquid final (*l* or *r*). It is found in the Nilotic, Zimbian and Nigritian provinces, and as the Zimbo-Nigerian varieties throw light on the original I give the former first.

The following are examples of the more prevalent Zimbian forms. Suaheli *mbili*, *mbiri*, Kinika *mbiri* Kikamba *ili*, Mazambik *pili*, *piri*. Makua *medi*, *pili*, Mudjana *gaviri*, *eviri*, Makonde *ividi*, Takwani *mi-li*, *vir*, Masena and Sotola *piri*, Nyambana *givre*, Zulu *mabini*, Sechuanana *biri*, *peri*, Benguela *vali*, Angola *ki-adi*, *i-ali*, Kongo *kole*, *koli*, *sole*, (*ole*, *oli*, in 12 and 20) Embonna *meoli* (*odi* in 7, *mi-oli*, *oli* in 12 and 20), Kambinda *zoli*, Mundjola *biere*, Mpongwe *mbani*.

The corresponding Mandingo forms are *fire*, *fila*, *fela*, *fering*, *pu-ring* &c.

In some of the other Nigerian languages a pure labial term is found, and its immediate affinities are Sudanian,—Hausa *biu* (other Sud. forms *bu*, *boyu*, *bue*). The combination of vowels is a Hausa trait,

† Additions from Koelle,—*si-vi-ri*, *dsi-vi-ri* Muntu, *pe-li* Matatan, *bi-wa-de*, *i-ya-de* Songo, *ya-t*, *ya-li*, Lubalo, *ka-t*, *zo-le*, *yu-ol*, *bu-ol*, *bo-l*, *bie-le* Angola &c. The Musentandu *ko-le* when compared with *ko-sil* and *ko-tatu* 3, *ko-iya* 4 &c. shows that *le* is the root in 2 as *si* is in 1. The labial pref. is equally regular in Mutsaya *mu-mol* (*mo-mo-s* Babuna), *bo-l* 2, *ba-tet* 3, *ba-na* 4, *ba-tan* 5. Kanyika has *tu-wi-do* (*tu-sa-tu* 3). Mandingo has *fe-le*, *pe-re*, *ve-re*, *fi-rin*. The Baga group has the cognate *i-rin*, *pe-ran*, *pa-ran* (Comp. *pi-n* 1, *pe-sas* 3, *pa-nere* 4.)

and it is preserved in the Kissi *miu*. Other Nigerian forms are *e-pa* Akongo, *ba* Camancons, *e-fi* Kerapay, *e-ba*, *u-ba* Karaba, *ma* Calbra, *i-ba* Woko Kaylee, *ba-ba* Bongo, *be-ba* Batanga, (*be-lala* 3, *be-nai* 4), *be-be* Panwe, *be* Biuin, *a-bo* Ibu, *u-ue* Whidab, *a-uwi* Papah, *e-mo* Akripon. The prefixual *be-* of the Pongo forms is repeated in some higher numbers. In a few of the more northern languages it is used in 1 also. In 2 it is combined with a nasal root. Ashanti *e-bi-en*, *a-bi-en*, *mi-enu*, (1 *mi-eh-u*, *bi-ak-ung* &c.)

Amongst the purely labial forms common to Hausa and the lower Nigerian languages, the full or compound form *bar* is found in Nufi *ogu-bar* 2 (in 7 it becomes *bi*, *ogu-twu-bi*). Shabbe *hoos-war-ba* 2, *hoon-ah-wara-bar* &c. 7, and Binin *a-boar* 2. These forms suggest that the Woloff and Nubian *ar* &c. of *ni-ar*, *ar-o* &c. is simply a contraction of *bar* &c. This is supported by the Tumali *ar-ko* 1, *mar-ka* 7, Koldagi *tell-ad* 7, Dalla *bar-de* 7, (*belle* 2), Shangalla *am-bund* 2. The Koldagi *tell* of 7 and the Dalla *belle* 3 are Zimbian and Mandingian forms (*bili*, *tela* &c.), corresponding with the Shiho *mel-hen*, Danakil *mel-nene*.

(b.) With the contracted Tumali *ar-ko*, Koldagi *ora*, Kensy *ow-um*, Nuba *ouo-gha*, Darfur *ou*, we must place, on the one side, the Kuafi *ari* and, on the other, the Woloff *ni-ar* and Tembu *no-ali*. In these Nigerian terms the nasal is a prefix as in the Woloff *ni-at* 3, *ni-ane* 4; Tembu *no-dose* 3.

(c.) In the Galla family a labial follows the liquid instead of preceding it as in Zimbian. In Bishari a labial both precedes and follows the liquid. Bishari *malub*, Dankali *lume*, *dume*, Saumali *lebe*, Shiho, Galla *lama*, Wolaitsa *nama*, Wolaitsa, Woratta *laha*, Agau *langa*, *linga* (in 7 also *la-ma*), Malagasy *rua* or *ru-wa* [in Asonesia *ru-a*, *du-a* or *du-wa*, *lu-wa*, *nu-wa*, *du-ba* &c.] The Begharmi *sub*, *szab* may be of W. Nilotic origin through *dum*, *lub* [=dub] &c. The anomalous Yanguro *hep* may also be a modification of a term having a similar origin [Saumali *leb*].

The Galla-Malagasy terms *lub*, *lume*, *dume*, *rua* &c. resemble the Indo-European *d-wa*, *d-wa*, *d-uo* &c., Lazian *ku-wa*, Ugrian *k-av-to*, Turkish *d-wa-tu* 4 (i. e. 2 dual), and also those varieties of 2 and 4 which have a final *r*, Scythic, Caucasian, Indo-European. The collocation of the two elements and the vowel *u* distinguish the Galla-Malagasy from the Zimbian forms, and might appear to connect them with the Indo-European. But as the Bishari *malub* appears to be the full original form, these terms admit of a somewhat different analysis, and one that reduces them to an archaic variety of the common African numeral. In the archaic Semito-Libyan formation the labial was a definitive as in Caucasian and Scythic, and it was also a numeral element. (See the remarks on the Semitic numerals). In Semito-Libyan as in Caucasian it was used prefixually as well as postfixually, and Scythic, like Dravido-Australian, had archaic definitives and units in which the labial was either initial or prefixual. In Bishari, as in some other Semito-Libyan languages, the labial is still common as a prefix, and its ancient prevalence in the Nilotic province is attested by its use as a postfix in Dankali and Shangalla, (corresponding with the Hottentot usage), as a prefix and postfix in Berber &c. In Bishari it has the vowel *o* (*wo*, *om*, *o*), and in Dankali, Shiho and Arkiko it sometimes takes the forms *ub* and *um* as a postfix. Danakil an-

ub "milk", Galla *an-an*; *gell-ub* "the body", Agau *a-kel*, Tigre *a-kal-at*, Gafut *a-kal-at-an*; *kull-um* "fish", Adaiel *kull-um*, Hurrar *tul-um* Arkiko *mud-uf* "sheep", murroo; Adaiel *kok-ub* "stars"; *gel-ub* "left", gura Shiko; *ker-ub* "near", *her-ub* Shiko; *ruk-ub* "camel", Shiko *ra-ku-bo* Danakil, *raki-ba* Adaiel; *in-ob* "teeth" Arkiko, *il-uk* Saumali, *ir-ku* Falasha; *arr-ub*, "tongue" Saumali, *ar-uba* Galla, *arr-at* Hurrur. The Bishari 2 is probably therefore an archaic form of the numeral as it existed in the Gal'a family, and the correct analysis would appear to be *mal-ub*. This is confirmed by *sera-ma-b* 7 (5, 2) in which the labial keeps its place as the root, and by the 7 of Shiko, *mei-hen*, and of Dankali, *me-nene*, in which the root has its full form, and which I have already identified with the common African bar, *bel* &c. 2. The Shiko and Dankali 8 preserves the same root for 2, *bahr*, *bahara*, and it is also found in Malagasy, *val-u*. The Shangalla metama 1 is a similar example of the labial occurring both as an initial and final. The Galla 7 also retains the labial postfix *-ba*. The Bishari *mal* may therefore be considered as simply a variation of the Nilotic form of the common African 2, *bar* &c. The terms under (c) would thus appear to be *mal-ub*, *lu-me*, *du-me*, *le-ba*, *la-ma*, *na-ma*, *la-ha*, *la-nga*, *li-nga*, in which the root vowel sometimes takes the slender form as in the Dalla *be-le*, Zimbiana *bi-li* &c. The Malagasy term, in like manner, becomes *rua*, which approximates to the archaic Semitic form of the same term lost in 2 but preserved in 4 (2 dual) *ar-ba* &c. The Tumali *ar-um* 4 preserves a form of the original postfix similar to the Galla *-ub*, *-ume*. Amongst the current Semitic terms for 2 Hebrew retains a labial postfix. In the historical condition of the Semitic languages the numerals, save 1, are substantive not qualitative. They have different forms for masculine and feminine, the fem. being, however, used for masculine words, and the other form, without the fem. final, for fem. words. As the numeral postfixes must have been originally qualitative, it is probable that in the era of the Semito-Libyan formation when the sexual variations of the definitive were in full use, the unit took all the definitive postfixes, and the higher numbers all those which had a plural application. The labial was masculine and plural, although originally singular or indefinite; the liquid l, n, r, d was also plural; i fem. and plural; u plural &c. In the most archaic period the unit probably itself varied with the sex. The dental and sibilant def. may have been the fem. unit, and the labial the masc., and in the higher numbers, which were but compounds of units, the distinction may have been maintained. Those terms in which the labial occurs as a root or postfix were probably the original masculine numerals. Their obscuration, concretion and loss is a phenomenon similar to the decay and loss of the masculine definitive in the glossaries generally, save in Hottentot, and the persistence of the feminine. It seems possible to explain in this mode the original currency of two terms for 2, *ba-ri-ba*, *ba-r-ba*, *m-al-ub*, *bi-ri-ba* &c. masc. and *s-en-te*, *ih-na-ni*, *o-il-il* &c. fem. The vowel may also have even in these archaic form had a sexual power bar, *ba-ru* &c. being a common and *ba-ria* fem. form. The masc. labial root they have been the principal term when the Semitic system was first carried to Africa, although the fem. root afterwards became the more important in the Semitic languages.

It is clear, on a comparison of all the Semitic and African terms, that the ultimate archaic root is the liquid—*na*, *ne*, *in*, *nau*, *nu*, *roh*, *n*, *r* Semito-Egyptian, *li*, *ri*, *le*, *la*, *r*, *l*, *de*, *te*, *dsi*, *so* &c. African—; that it was

early conjoined with the labial and with the sibilant (dent., gut. &c.) def. prefixally, postfixally, or both; that the form with the labial prefix became one of the most prevalent in Africa, the prefix early concreting with the root,—a secondary prefix, labial &c. being assumed in some languages, and the root itself being thrown off in several.

With the aid of Koelle's Voc. a list of the principal variations of the Semito-African numeral may be given.

The root has the variations na, ni, ne, nu; la, li, le, lu; ri, re, roh, ru; di, de, ndi, du; ta, ti, t; su, so, si, dsi, se, dse; ka, ga. The actual forms are:

1st, the pure root, with the servile particles thrown off, as ndi Bornui, le Gurma, so Grebo group.

2d, the root with serviles, as e-dsi Aka-Igala gr., *n-le*, *le-a* Kasm &c., i-le Kambali, *ya-r* Woloff, *a-ro* Nubian, *rua* Malagasy.

3d, the reduplicated root, di-di Fulah.

4th, the root with the labial prefix, *bi-ni*, *bi-ri*, *va-li*, *vi-di* Zimbian, *be-le* Dalla, *fe-la* Mandingo, *me-dsi*, *me-do* Aka-Igala gr.; the same form with the labial postfix *ma-lu-b* (or *m-al-ub*) Bishari, *bi-ne-b* Bute; with the guttural postf., *ma-r-ha* Koldagi (7), with the dental postf. *je-l-ad* Koldagi (7); with a secondary labial prefix, *bi-wa-de* Songo; with a secondary dental, sibilant, guttural or liquid pref., *si-vi-ri* Muntu, *tem-be-re* Nyamban, *e-bi-en* Ashanti, *g-ba-ri* Dsarawa; with the liquid final, *ma-ra-n* Landoma, *fi-ri-n* Mandingo, *pe-ra-n* Timani, with the root elided, *be*, *i-be*, *a-fa*, *e-ba*, *m-ba*, *pa*, *pi-pa*, *be-ba*, *be-fe*, *e-we*, *e-ve* &c. very common in the N. W. Zimbian pron. (isuwu or Cameroons-Gabun, the Calabar and Lower Nigerian groups, thence inland over the Chadda basin to Sudania including Hausa, and westward in the Dahom y group).

5th, the root with the sibilant, dental or guttural prefix, *she-ne* Hebrew, *s-roh* Mahrah, *s-nau* Eg., *si-n* Shillah, *di-si-n* Kandin, *ki-le* Arkiko, *ko-le* Musantandu, *zo-le* Basunde, *ka-t* Angola, *ti-el* Gura; the same form with postfixes, *ith-na-ni*, *ath-in-t-un* Ar. *she-ne-m* Hebrew, *the-na-t* Berb., *s-nou-s* Eg., *ke-ta-b*, *ngi-ta-bu*, *ke-ta-w* Bola gr., *t-ri-n* Mampa.

6th, the root with a labial postf., *lu-me*, *du-me*, *le-ba*, *la-ma*, *na-ma*, Galla group &c., *su-b* Begharmi; with the liquid postf. *la-nga*, *li-nga* Agau.

In the Filham *ku-ga-aw* the root is gutturalised. The serviles connect the form with the adjacent Balla *ke-ta-w*. The Fulup *fu-ga-p-ten* is the Filham *ga-ma* with a superadded postfix and with the labial in place of the guttural prefix. In the variation *fu-ten* the root is ejected. In the Limba toe, *kae* the variation of the root consonant from the dental to the guttural also takes place. The Bidsago *mund-su-we*, *i-so-be*, Bulanda *g-si-b-n* are allied forms, and the so of the Grebo group is connected with them. The Baghermi *su-b*, *sza-b*, *sa-p* is a Mid-African link between this detached and peculiar Senegambian group and the Bishari-Galla, with its *lu-b*, *du-me* &c. The line of diffusion thus indicated must have preceded the advance of the Zimbian forms from the south into the Nigerian, Chadda and Sudanian provinces.

Foreign Affinities.

A. See Semitic.

B. The Dravido-Australian bar, bari, bula &c. are analogous terms. In the other Asiatic systems the labial initial is not prevalent. The second and radical element li, le, ri, re, ni &c. is very common. With the

sibilant definitive and unit prefixed, it occurs with the same slender vowel in the Semitic *is-in-*, *she-ne* &c. (the *in*, *ne* generally changing to *il*, *li*, *le*, *l*, *ri* &c. in African languages), in the Caucasian *shi-ri*, *o-ri*, Samoiede *si-ri*, *si-de*, Chinese *il*, *ni* &c. The Kongo terms favour the inference that the African liquid element is the same as the Scytho-Semitic and Caucasian. They even tend to show that the term was received from a Caucasian language. But it is more probable that in the original Asiatic system, as in the Zimbian, the labial definitive and unit was preserved as the initial in some varieties of 2 as well as the sibilant, guttural &c. If so, the African *bili* &c., like the Dravido-Australian *bar*, *bari*, *bula* &c., is a remnant of a form once prevalent in Asia. The Caucasian *wi-ba* (Abkhasian), an Euskarian *bi*, are similar remnants, the former having the labial postfix *asin* the Malagasy term. In many Scythic terms and in the Indo European the labial element keeps its ground with more or less prominence and tenacity. But in these terms the labial has another definitive unit (dental, guttural &c.) prefixed (B). Japanese preserves the labial in 2 as in 1, 3 and 4 (*fi*-to 1, *fu*-ta 2, *mi* 3, *mu* 4). The closest forms to the Zimbian are preserved in the Scythic and N. E. Asian 1, 5, 10 &c. *bir*, *pir* &c. 1 (Turkish), mill &c. 5, 10, Koriak, mer 10 Tungusian. The only N. E. term that preserves this form in 2, and thus corresponds with the Dravido-Australian and Zimbian, is the Namallo (Esquimaux) *mal*, the broad vowel being Dravido-Australian and Nilo-Nigerian but not Zimbian. Hence it may be inferred that its dissemination as a term for 2 was very archaic. The Kongo-Angolan *so-li*, *ko-le*, *ya-ri* closely resemble the Semitic form, and still more closely the Georgian *o-ri*, *shi ri*, *ye-ru*, while all have Scythic affinities. They strongly support the opinion that the liquid is the essential element in the term, and that the contracted forms *ni*, *li*, *ri*, *di*, *ti*, *si* &c. are a return to the ultimate root. The Zimbian and other similar African terms appear to be related to the current Semitic not directly, but through their mutual derivation from an archaic Semitic or Semito-Libyan mother-system, analogous to the Caucasian and Scythic.

The broad and widely spread Nilo-Nigerian form, *mal*, *bar*, *ba*, *ar* &c. is merely a variation of the slender *biri* &c., and it is probable, from the Kuafi and Tembu terms, that the full form was *ba-ri*, the liquid having the slender Asiatic vowel as in Zimbian and the vowel of the labial corresponding with that of the Kongo-Mpongwe form of Zimbian, *va-li*, *ba-ni*. But whether the broad form of the labial was a distinct Asiatic importation and directly connected with the archaic Namollo *ma-l*, Dravido-Australian *ba-ri*, *ba-r*, or was merely an African modification, is not clear. In Asia the broad form appears to be the more archaic, the vowel in the slender forms having assimilated to that of the conjoined definitive in *si*, *li*, *ri*, *ti*, *ki* &c. It is probable that in Africa also the form *bi* &c. was secondary and *ba* primary, in which case the eastern *ba-ni*, *va-li* would be the original Zimbian form; but the Caucaso-Euskarian *bi* suggests that *bi* may also have been imported from Asia. In the Semitic terms for 2 the same assimilation of the vowels of the two elements is found. In the Semitic 4 the broad vowel of *bar*, *mar* is preserved in the contracted form *ar*, while the fem. form of the labial 1 *wali* is identical with what appears to have been the older African form.

Obs. on the Distribution of the terms.

1st. The broad forms *ba-ri*, (*ma-li*) *ma-lu*, *du-ma*, *ru-a*, *sa-b*, *su-b*,

so-ma &c. appear to have been the first that were very widely disseminated. They are the most prevalent in the Nilo-Malagasy and Nigerian provinces, and in the N. W. division of the Zimbian. The broad form was probably received from the Semitic province before it was replaced there by the present Semitic term. The slender variety *bi-ri* was probably diffused at a later period by an influential Zimbian dialect, as it is the most prevalent in the east and south divisions of Zimbian. But the *Dan-kali*, *Saunali*, *Dalla* and *Koldagi* forms appear to show that it did not originate in the purely Zimbian province. In the west the later forms, and contractions of them, have spread northward, displacing the older varieties in most of the Nigerian groups.

2d. The historical Semitic terms are evidently comparatively recent in Africa and have made little progress. The Abyssinian, Egyptian and Berber mark the oldest diffusion of the Semitic forms.

Three.

The African terms for 3 are remarkable for their adherence to one ultimate root, and for that root being the same as the Semitic.

A. *sho-men-t*, *sha-me-t*, *sho-m-t*, *sho-m-ti*, *sho-m-te*, Egyptian. [See Semitic]. The Bishari *mih*, in 8 *su-mhai* (Semitic, Eg.), preserves the labial.

B. (a) *tha-lā-th*, *sa-la-tha*, *sa-la-sa fem.* *tha-la-tha-ta masc.* Arabic, *shā-lō-sh fem.* *she-lō-shāh masc.* Heb., *si-la-sa* (30) Babylonian, *te-la-ta masc.* *te-la-t fem.* Chaldee, *se-le-ste* Tigre.

(b) *ke-ra-d* Berber, *k-ra-t* Shillah *ka-rā-d* Kandin, [See Semitic]. (b) is a variation of (a).

(c) *tha-th-it* Mahrah, *tha-k-it* Gara, *shi-sh-ti*, *shi-sh-et* (*sa-sa* 30, *si-ssa* 60) Harragi, *so-s-t* Amharic, *to-s-k* Nubian, (*sa-sa* 30 *Gafat*, *sa-aso*, *sha-sha* 30 *Gonga*.) The Mahrah, Gara and Harragi forms correspond with 6 (3 dual) not only in these languages, but in Arabic and Hebrew (which drop the *la*, *lo* of 3). The Babylonian 3 is not ascertained, but in 30 it has the Arabic form. In 60 however a more archaic form is preserved, *su-su* [Heb. *shish-shi* 6, *shish-shim* 60], or *su-si*, which corresponds with the Amharic *so-s* of 3, (Harragi, *Gonga* and *Gafat* 30), and indicates the former existence of a similar term in the Himyaritic province. The definitives and 3d pronouns in *su*, *so*, *hu*, *ho*, *tu*, *to* &c. render it probable that this was the oldest form of the Semito-Libyan unit, but those in *a*, *i*, *e* may have coexisted with it from an ancient period. Both are found in African terms for 3 and other numerals. [See Semitic]

The Himyaritic double dental or sibilant, or dental followed by the guttural, is similar to the most widely prevalent African terms.

Galla family. *su-ddeo* Danakil, *su-d'de* Saumali, *se-dde*, *sa-di*, *za-di* Galla, *a-dda* Shiho, *se-tte* Dalla. From the Galla and Dalla forms and the absence of the infixed *la*, *lo*, these terms appear to be of Himyaritic origin.

Zimbian family. *ta-tu* Suaheli, *i-ta-tu* Ki-Kamba, *ha-hu* Ki-Nika, *i-ta-tu* Makonde, *ga-ta-tu* Mudjana, *ta-tu* Masena, *Sofala*, *Kosah*, *ma-tha-tu* Zulu, *ta-tu* Benguela, *Angola*, *Kongo*, *Kambinda*, *sa-tu* Bondo, *bi-te-du* Mundjola, *ta-tie*, *tu-to*, *Fulah*, *nda-ta* Tumali. These forms are allied to the Himyaritic *tha-th*. A second variety suggests that both, although cognate with the historical Semitic, have an older common source—*ma-ra-ru* Makua, *vi-ra-ru* Takwani, *tha-ra* Mazambiki, *tri-ra-ru* Delagoa

Bay, *ti-nha-ro*, *gi-na-ro* Nyambana, *ta-ru*, *tha-ro*, *ba-ra-ro* Sechuana, *t'-no-rra* Hottentot, *a-ru-se* Hot., *be-la-la* Panwe, *ba-la-li* Bonga, *me-le-le* Camancons, *hi-ra* Akuonga, *la* Binin, *ra* Bullom, *ntsha-ra* Rungo, *te-re* Calbra; *ti-lu*, *ta-lu*, *te-lu* Malagasy. The chief peculiarity of the Zimbrian terms is the final vowel *u*. In *ta-tu* it does not correspond with any Semitic form, but as this form without the *l*, *r* is simply the double definitive and unit, it may be referred to an archaic form of it similar to the Mahrah and Gara *ta-ut* 1 and the Babylonian *su-su* 60. The *u* of *ta-ru*, *tha-ro*, *ta-lu*, *te-lu* &c. corresponds with the Hebrew *lo* in *she-lo-sh*, as the initial definitive and unit does with the Arabic *tha-la-th*. The same form of the liquid element is found in the Mahrah and Gara *roh* of *s-roh* 2, and in the Malagasy *wa-lu* 8 and *fu-lu* 10. It is probable, from the variation of *th*, *s*, *t*, to *r*, *l*, occurring both in the Semitic and Zimbrian terms, that the latter was not the plural def. *n*, &c. occurring in 2; but merely a phonetic modification of the former, as in the Panwe *va-ta* 1, which becomes *va-la* in 6 (6, 1). *Su-su*, *tha-th*, *ra-ro*, *la-la* &c. are forms strongly presumptive of the original term having been a reduplicated unit, for they are found in widely separated branches of the system. Such forms as *tha-k*, *tha-ra*, *tha-lu*, *ta-lu*, *na-ro*, *k-ra*, &c. appear to be only variations of the original term. Similar variations occur in the allied N. and E. Asian terms [See Semitic Numerals, 3 B.]

The Gongga, Agau and Nubian terms appear to belong to a later era,—that of the extension of Himyaritic to Abyssinnia. The Nubian *to-s-k*, *to-s-ko-ya* (double postf.), *tow-s-ko*, *to-dje*, are Himyaritic or Babylonian through Abyssinnian (Amharic *so-s-t*, Gafat *so-s-ta*). The Tembu *no-do-so* is evidently of Nubian derivation. The Tumali *nda-ta*, although resembling the Zimbrian forms, appears from its final vowel to be Semitic. The Fulah *ta-tie*, *tu-t*, appears to be also Semitic through Galla *sa-di*, *su-de*. In Berber the 1st *th*, as we have seen, is hardened to *k*. Some of the Himyaritic dialects appear to have hardened the 2nd *th*, and to have transmitted this form to Africa. The Gara (Ekhilli) *tha-k-it* preserves the Himyaritic source of the Agau *sha-k-wa* (*wa* is a Libyan definitive postfix, replacing the Semitico-Libyan *-t*, *-d*, as in the Agau *lo-wa* 1, *ak-wa* 5), Agaumi-der *shu-gha*, Falasha *si-gha*, Shangalla *u-ka-g* (both dentals hardened). The Gongga group has *ke-s* (*k* for *th*, *t*, as in 2, and as in 3 of the Dulla 8), *he-zaa*, *he-dza*, *he-dja*, *se-ke-che*. If the last form (Kaffa) be the full one and the others contractions, the *-che*, *-za*, *-dza* is the def. postf., and *se-ke* the root, corresponding with the Agau forms and with the Gara *tha-k*, the *a* of *tha* softening to *e* as in the Hebrew and Chaldee forms. The Shangalla form corresponds with the Kuafi *o-ku-ni* and represents the Nilotic parent of the Sudanian *o-ku* (Hausa), *wu-ku*, *bu-ku*, *ya-sku* (Bornu), *Pika* &c. *ku-nu*, *a-ko-an*, *ko*, Buduma *ka-ke-ne*, *ke-ne* &c., as the Agau does that of the Mandingo *sa-k-wa* (Vei), *sa-k-a* (Susu), *sa-g-i* (Jullunkon, in 8), *sa-ba*, *sau-wa*, *sa-bi*, Serakoli *si-k-o*, and of the forms in *sa*,—Darfur is, Emghedesi *ayin-sa* (*ayin-ka* 2), Fanti *e-bi-sa* (*e-bi-en* 2), Fetu *a-bie-san*, Akim *bi-an-sang*, Afutu *a-ssah*, Avekwom *a-za*, Amina *e-sa*, Akripon *i-san*. Dental forms of these sibilants also occur in Nigeria. Woloff *ni-at*, Kru *ta*, Tambu *e-ti*, Ibo *a-tu*, Papa, Whidah, Grebu *tunh*, *o-ton*, Moko, Karaba *i-ta*, *e-ta*, Karapay *el-tong*, Panwe *tayh* [Shiho *a-d*], Yoruba *ma-i-ta*. The Begharmi *ma-ta* is a similar variety.

Köelle's vocabulary gives numerous West and Mid African varieties of

the Zimbian forms, *tati*, *tat*, *ata*, *ita*, *eta*, *eto*, *ta*, *esa*, *eha*, *nta*, *bata*, *meta*, *guta*, *kotatu*, *bitate*, *batet*, *dsitadu*, *belaro*, *pelalo* &c. &c.

Foreign Affinities.

A. The Egyptian term is Caucasian &c. (see Semitic), and its disuse not only in the Semitic but in the African 3,—although preserved in the Semito-Egyptian 8 (5, 3),—is equally remarkable with the almost universal prevalence of B. in the Semitic and African languages.

B. The affinities of this double unit are indicated in the Semitic list. It has only one representative in Caucasian; but it is Indo-European in the *t-r* form, (which is the Scythic *k-r*, *k-l*), and Scythic in the *t-t*, *t-k*, *s-t*, *s-s*, *k-r*, *k-l*, *h-r*, *g-r* forms. Its wide prevalence in the S. W. portion of the Old World, (Indo-European, Semitic, African), and the circumstance of its having apparently supplanted the older Chino-Scythic term preserved in Caucasian and Egyptian, render it probable that it early became appropriated to 3 in the numeral system of an influential and diffusive South Western race. In 1 the same double form occurs in Caucasian systems, *zi-s*, *ho-s* &c. In Semitic it may have been *fem.*, and *sho-m* *masc.*

Obs. on the Distribution of the terms.

Following the analogy of the glossary generally, and on historical probabilities, it may be concluded that the terms similar to the Arabic, such as the Berber, are the latest Asiatic importations,—that those similar to the Himyaritic, such as the Nilo-Nigerian *sha-k* &c. and the Amharic and Nubian *so-s*, *to-s* &c., belong to the Himyaritic era,—and that the prevalent and widely diffused *ta-tu*, *ta-ru* &c. belong to more archaic ages, like the common African terms for 2. They are probably of common origin with Semitic, rather than of Semitic origin. The Egyptian 3 appears to show that when it was received from a Semitic language, the Semitic family had a greater variety of terms for 3 than it has had in later times.* In Zimbian the forms *ta-tu* and *ta-ru* appear to have co-existed, and they probably did so in the earlier Semitic ages also.

The wide dissemination of the forms *tatu*, *taru*, *raru* &c. was probably effected by the great Zimbian movement.

That of the several Nilotic forms indicates important movements of Nilotic tribes to the westward, subsequently to the Himyaritic era. The Amharic forms of Himyaritic have been carried to the Nubian tribes, and thence to one at least of the Nigerian tribes. The Agau forms—corresponding probably with the original full forms of Gonga, Shangalla and Kuafi—must have been carried westward by an influential or dominant tribe, for they are more widely diffused in Nigeria than any others. The Mandingo tribes are probably the modern representatives of this great Nilotic movement. The Fulah movement appears to have been a later one, and the term for 3 concurs with other glossarial facts in indicating that the influence of the Galla migrations and conquests extended at one time into Sudania, and was thence transmitted to Nigeria.

* In the pre-historic era of the formation it is probable that Semitic had more dialects than in after ages. The more barbarous the tribes, the greater their segregation and the more numerous their dialects; and the capacity of the family glossary for variations in the forms of roots and their compounds, depends on the number of dialects.

The powerful diffusion of Himyaritic terms by different streams appears to show also that the Nilotic tribes received a great impetus from the civilisation and energy of the Himyarites or an earlier Shemo-Hamitic race. The Galla, Fulah and Mandingian tribes probably derived from them something of their physical superiority to the purer Negro races.

Four.

A. (a.) ar-ba-ud Mahrah, Gara, ar-ba fem. ar-ba-ta masc. Arabic, ar-ba-ah masc. ar-ba fem. Hebrew, ru-bu Babylonian, ar-bea masc. ar-ba fem. Chaldee, ar-ba-ti Tigre, ar-ba-ta Gafat, ar-at, ar-ut Amharic, ar-at Harragi, u-bah Arkiko, ar-um Tumali, [ra Bullom, e-re Yebu, perhaps Zimbani].

(b.) a-f-t, f-tu Egyptian, fou-so Tibbo, a-fu-r Saumali, fe-re Dankali, (bah-r Shiho, baha-ra Dankali 8), hau-da, au-da, hoi-da, oi-da Gongga, fu-du, hu-du, fo-du, o-du Hausa; fu-lu Kalahi; e-fa-r, e-fa-tra, e-fa-d, e-fa-tu, e-fu-tsi &c. Malagasy (e-fa in 40). The Malagasy e-fa-r, with the allied African terms preserve the original full form of the Semitic ar and show that it was originally 2 repeated (2 dual). The same term is common in Africa as 2, bar, war, &c., contracting in Kuafi and Tumali to ar. The Semitic 4 (a) is also, in all probability, a dual of this form of 2, with the archaic labial postfix,—ar-ba from war-ba. It recurs in 7 (5, 2) and 8 (4 dual). See the remarks on 2 above, and also Semitic Numerals, 2, 4, 7. The contracted prefixal e. of Malagasy is found in some Nigerian terms. It is Semito-Libyan (a, e, i, &c.) and occurs in the Egyptian and Saumali terms under the form a.

B. (a.) zaa-cha, an-za-cha Shangalla, ach-ech Gongga, si-za, se-dza, sa-dja Agau, ma-che-ye Makua, mu-tye-tye Mudjana, se-se-s Mazambiki, si-ja Kongo. These terms are similar to the double unit of 1, 3 and 5. They have no apparent connection with any of the Semito-African terms for 2, and may have been formed from 3 like the Kafia 4-se-ke-che—se-koe (3, 1). Similar terms recur in 9 (5, 4), and in the Semitic 9, which not only resembles these African terms for 4 and 9, but the Semitic 8 and 3. All these affinities would be explained by the Semitic 3 being formed from 1, that is having originally been 2, 1. In both its varieties tha-la &c. and tha-th, it is represented in current terms for 1. (See the remarks on the Semitic 9).

(b.) The Berber ku-z, Shillah ko-s-t, is a similar term. The Nubian ke-m-su, ke-n-ju, ke-m-so-gu may be connected with it. Both resemble terms for 5, and possibly 4 may have been "1 from 5," but it is much more probable that they were formed in the ordinary way from terms once current as 2. The Harragi ke-t, 2, (a contraction of ko-l-et), resembles the Berber ku-z 4.

C. (a.) The Bishari u-ddi-g (dig in 9), Bornui di-gu, de-ku, Emghede-si a-ta-ki are probably 2 dual (Bornui indi 2, Fulah di-di &c.); di is one of the variations of the chief Semito-African root for 2, na, in, il, li, di &c. In Bornui the guttural is postfixal in other nouns also. See (c).

(b.) se-lle Dalla,—te-lle in 9 (5, 4),—is probably from a similar term for 2. Le is the 2d element in 1 and 2 also. In 4 its immediate origin is probably the Semitic 2, she-ne Hebrew, s-en Egyptian, si-l-ül Kallahi.

(c.) The Zimbani term is the nasal Semito-African root for 2, ne, ni, na, nai &c. It prevails in the Nigerian as well as the Zimbani province. Suaheli ne, Kikamba i-na, Kinika u-ne, Takwani vi-nai, Masena hi-na, Sofa-

la nai, Kosah ne, Sech. i-ni, Nyambana *gi-mu-ne*, Zulu *i-ne*, *ma-ne*, Benguela *kwa-na*, Angola *wa-na*, Kongo *kwa-na*, *ya-en*, *mi-na*, Sonho *wa-na*, Embona *m-na*, Mpongwe nai. Compare with the Southern Makus [Takwani] and Mpongwe form the Gabun terms,—Batanga *be-nai*, Bonge *bu-nai*, Panwe *be-ne*, Akuongo *mi-nu*, Camancons *me-ley*, Kerapay *e-nay*, Karabz *i-na*, *e-nang*, Rungo, Calbra ni, Moko *i-nan*, Kaylee *bi-nan*; the Binin nin, Ibo ano, Papah ene, Akripon ne, Whidah e, Efik inan, Yoruba mene, Fanti, Akim anan, Amina anani, Avekwon aza, Grebo hanh, Kru nie, Bullom nen-ol, Timmani *pan-li* (*pan*, *pur* &c. is a pref.), Kissi iol, Woloff *ni-an-et*, Mandingo nani, na, Fulah ni, nai. The Darfur ong-al, (in 40 on-g-val) is probably connected with this Zimbo-Nigerian form.

The Yangaro nan of nan-giri 8 appears to the same term.

In the Zimbian 4 the most radical and persistent element in the Semito-African 2 appears as the original term. In 2 it has the forms in, ne, na, roh, nra Semitic, il, li, le, ri, re, ne, nu, ni, di &c. African. Some of the amplified forms, na-i, nani, nan, i-nan &c. involve the Semitic prefix as well as the radical element (ith-na-ni Arabic), or, as is more probable, they are the original dual form in full, 2, 2. These double forms are not found in the E. and S. W. Zimbian dialects. They occur in N. W. Zimbian—*be-ni-n* Melon, *e-ni-n* Ngoten, *be-ne-n* Isawu; in the adjacent Chadda. prov. na-n Ham, *wi-nyi-n*, *nyi-n* Tüsi, *a-nu-r* Koro, *a-nye-ra*, *nye-ra* Dsuku; and in the N. W. Nigerian na-ra-to Gadsaga, *pa-ne-re* Baga, *pa-n-le* Timani, na-ni, na-n Mandingian gr.

The term is probably equally ancient with 3 and 2, and referable to an era of the Semitic system when the liquid was the proper root of 2, and had not been concreted with the labial masc. or sibilant fem. definitive, used as a prefix or initial. To this period its acquisition of a dual and thence of a plural power is probably to be referred.

Foreign Affinities

If the African terms for 4 are all Semitic of different periods, and based on Semitic terms for 2, their foreign affinities can only be considered through Semitic, and as illustrating its archaic condition. The only term of interest in this respect is the Zimbian. In several N. and E. Asian systems the pure liquid definitive is found as 2 and 4, Aino *i-ni*, Korean nai, Ugrian *ni-la*, *ni-l* &c., 4. (See Semitic 2). These forms, with those in which it occurs as 2, render it probable that it was used as a numeral element in Semitic prior to the concretionary era,—a conclusion that is supported by the history of the language generally, which carries back the numerals to the period when the definitives were free, and capable of being used as units. The Zimbian 4 appears to belong to that era of the Semitic system when the liquid root had not become agglutinated with the initial definitives. At the same time it must be recollected that a contracted term existing in one dialect may obtain a wide currency through the spread of an influential race. The history of the Zimbian 4 must be considered in connection with that of the other numerals, which certainly favours an archaic, and not a recent, derivation from the Semitic system.

Obs. on the Distribution of the terms.

1. The contracted historical Semitic forms, including the Himyaritic, have made little progress.
2. The Egypto-Malagasy terms appear to preserve the full form of the Semitic, and are probably pre-Himyaritic or archaic Himyaritic, and of

the same era as the similar and most prevalent African terms for 2, now lost in Semitic.

3. The Zimbian term appears to be equally ancient. Although the broad ar (from war, bar &c.) is the prevalent Semitic form in 4, it is probable that slender forms were also once prevalent in 4 as in 2.*

The broad Zimbian terms with the labial prefix which prevail in the Western group, wana, wan, *ki-wana*, *bi-wana*, bana, with the Felup *fu-bare-gen*, have the same form as the Malagasy *e-far* &c.

4. The other terms, with the exception of C. (a), which is probably of equal antiquity with the Zimbian, appear to belong to that era of Semitic when fem. forms had begun to replace masc. From the distribution of these terms they appear to be of later introduction into Africa than the Egyptian, Galla and Malagasy form. The prevalent Semitic 4 may be considered as exceptional, because it preserves the same archaic masc. form. † The double sibilant &c. of Shangalla, Agau &c. was probably that of a Semitic dialect which had replaced it by the fem. form, although all the Semitic languages afterwards assimilated in their use of the masc. form, under the influence, it may be surmised, of that single dominant language which has produced so large and remarkable a uniformity in the Semitic numerals and pronouns, and in much of the general glossary also.

Five.

The terms for 5 are similar to forms of the unit 2 found in lower numbers, 1, 2, 3, and the most common, as well as the closest, affinities are with forms that are used for 3,—as has already been noticed with reference to the Egyptian 3 and Semitic 5. In the prevalent African systems 5 is the highest number in the first series, six being 5, 1, seven 5, 2, &c. It might therefore be well expressed by one of the names for the unit, 1 hand, or 1 tale, and the term would naturally have a plural or collective form as in 2, 3, 4. Four having been expressed by 2, 2, the collective unit for 5 would probably be taken from forms used as 3. But from some of the terms it may rather be inferred that 5 was originally 3, 2 or 2, 3, as in some other formations. The Semitic *kha-m-sa*, *kha-me-sh*, Berber *su-mo-s* &c. is the form of 3 (1, 2) preserved in Egyptian, *sho-m*, *sha-me* &c., followed by the principal or sibilant numeral root, which may have represented 2, or been a remnant of 2, *she-ne*, *ath-in* &c. The Gallo-Zimbian form—which only differs from the Semitic in having the liquid in place of the labial second element—closely resembles Semitic and Zimbian forms of 3. Comp. *sha-n*, *sa-nu*, *ta-nu*, *ta-ni*, *ta-ru*, *so-lu*, *la-n*, *lo-lu*, &c. 5, with *she-ne*, *ath-in*, *sa-ni*, *su-nu*, *zo-le*, *ra-n*, *ta-la*, *sa-la*, *tsa-la*, *sa-ra*, *ka-ra*, *ka-ru*, *ku-na*, *ta-ru*, *la-lo*, *la-ro*, *la-l*, *la-n* 3, (i. e. 1, 2). †

* Koelle gives *wer-be* as the Arabic of Beran. Possibly the *w* is archaic.

† From some of the forms in higher numbers given by Koelle, it appears probable that the second labial is radical also, and that the original Semitic term was *bar-bar* or *war-bar*, i. e. 2, 2.

‡ The Mandingian group preserves several of the variations,—*so-lu*, *so-li*, *su-li*, *lo-lu*, *no-lu*, *ndo-lu*, *du-lu* in 5; *su-n*, *se-ni*, *su-ra* in 6; *su-lu*, *so-lo*, *so-ra* in 7; *su-n*, *so-lo* &c. in 8 &c. In 3 it has distinct Semitic and Nubian forms, *sa-ra*, *sa-ra-n*, *sa-g-wa*, *sa-wa*,—*sa-g-wa* being Himyaritic through Agau. The *o*, *u* of the higher numbers is the archaic Semitic form found in Egyptian, Berber, Bishari, Galla &c.

Some specific instances of the reappearance of forms for 3 in 5 will place the fact beyond doubt. Gadsago 5 *ka-ra-go*, (Nubian and Bornui gut. postf.); Kandin *ka-ra-d* 3. Banyun *moto-ki-la*, *ki-la-k* 5,—the same variation of the Semitic 3, but preserving the slender vowel, as in *ke-ra-d* Berb.; the Banyun 3, *ha-la-l*, has the Kandin *a*, as in the Zimbian *la-lo*, *la-n*, *la-l*, *ra-ro*, *ta-ro*, *ta-ru*, *tsa-la*, Mandingian *sa-ra-n* (preserving the Semitic *s* form of the pref. in the S. E. Zimbian *tse-ra-ro*). S. E. Zimbian *k-la-n* 5 (Nyamban), similar to a N. W. Zimbian 3, Ngoten *be-la-n*, Isuwu *be-la-ro*, Calabar-Chadda *e-la-ro*. Nalu *te-du* 5, Zimbian *te-t*, *ta-tu* &c. 3. Timbuktu *i-gu* 5, Bornui *u-gu*, *u-ru*, Hausa *u-ku*, *o-ku* 3, Pika gr. *ko*, *ku-nu* &c., Kuafi *o-ku-ni*. Mandara *i-li-ve* 5 (3, 2), Ndob (S. of Mandara, apparently in the Chadda basin, whence Mandara probably acquired its Zimbian character) *le* 3, *be* 2. Baghermi *mi*, Hausa *bi-al*, *bi-ar*; this may be either 3, or 2, closely allied forms occurring for both numbers; the Hausa *bi-u* 2 (for *bi-ul* &c.) is in favor of its being 2, but similar forms are common for 3 and 5. Fulah *dso-wi* (5), *dso-we*, *dse* in 6 (5, 1), Mandingian *so-lu*, Bo-ko *so-lo*, Mbarike *i-tso-n* Dsuku *tso-ana*, Woloff *dsu-dom* Nuñ, gr. *gu-tsu*; these are typical of the most common forms, save that the sibilant has generally a and the liquid *u*,—*ta-nu*, *sa-nu* &c., Zimbian. The *u* of *nu* &c. as well as the prefix, shows these forms to have been derived from 3, *ta-ru*, *ta-ro*, *ta-tu* &c., and not from 2, in which the liquid root has generally slender forms, *li*, *ni*, *ri* &c., and takes the labial prefix. Forms in *o* and *u* are also found in 3, *e-to*, *a-to* Isoama gr., Dahomey gr., *to-re* Bagbalan, *ne-o-do-so* Kiamba, *ma-dsou* Padsade, *bi-dso* Biafada.

A (*a*) *tu*, *tiu*, *tie* (in 50 *taiu*, *teui*) Egyptian,—the unit in the archaic Semito-Libyan 3 form, as in the older African forms of (*b*) *su*, *tu*, and without the labial.*

The sibilant unit is found as 5 (3 for 3, 2) in the adjacent Bishari 6, 7, 8 and 9, in the forms *su*, *she*, *se*. In 6 it has the form *se-ra* (1 A. *h*), the Semito-Zimbian form of 3.

The *u*, *o*, form of the dental unit (variable to the sibilant &c.) is preserved in the 8 of Gara, *thu-m* (3, or 5†, for 5, 3), corresponding with the 3 of Egyptian *sho-m*, with the 1 of Gongga and Malagasy *i-so*, Egyptian *uot*, (= *wo-t*), Nkele, Bongo *wo-to*, Undaza *mo-ko*, Murundu *eo-ko*, Grebo gr. *do*, Boko *do*, Afudu *ka-do*, *do*, Mbarike *n-dso*, *n-dzo*, Vei *do-ndo*, Kauro *ku-dum*, Kiamba *ku-dom*, *ku-lum*.

(*b*) *kha-m-sa*, *kha-m-s fem.*, *kha-m-sa-ta masc.* Ar., *kha-m-ish-shah m.*, *kha-m-esh f.* Heb., *khe-m-as* Mahrah, *kh-ish* Gara, *kha-m-is-ti* Babylonian (*kha-n-sa* 50) *kha-m-sha m.*, *kha-m-esh f.* Chald., *a-m-is-t*, *au-m-is-t* Amharic, (*ka-m-sa* 50), *au-m-ish-te*, *ha-m-ish-ti* Tigre, *a-m-is-t*, *ha-mm-is-t* Harragi, *ha-m-is-ta* Gafat, *ha-m-za* African Arabic and Emghedesi, *a-m-us* Arkiko, *su-m-us* Berber, *su-m-os-t*, Shillah, *tu-m-at* Timmani, *o-ma* Tumali, *bu-su-me* Dalla, [See Semitic Numerals]. In these forms, which are radically 3 (i. e. 1, 2) or 3, 2, the initial unit varies to *kh*, *k*, *h*, *s* and *t*, and its vowel to *a*, *e*, and *u*.

The *u*, *o* form—probably the archaic Himyaritic—appears to have

* I have not seen Lepsius's paper on the Egyptian numerals, but it appears from Bunsen's reference to it in his Egypt, that Lepsius considered *tu* to be 2 (for 2 + 3.)

† 5 has the same form in the *tu-m*, *su-m* of Berber, Dalla &c. (see *b*).

been early and widely spread over North and Middle Africa—preceding the a form of Zimbiana (c). It is found in Darfur os,*—with *m* (for 2) in the Dalla, Berber, Timmani and some other archaic forms of the Semitic 5 *su-m*, *tu-m* &c.—with *n* (for 2) in the Galla *shu-n*, Shihō *ko-n*,—and in several Mid-African vocabularies. Fulah *dso-wi* (dse-go, *dso-we-go* 6, i. e. 5, 1), Daku *tso-ana*, *a-tso-ana*, Dsarawa *to-nan*, Mbarike *i-tso-n*, Afudu *mbe-dsu-en*, *be-tu-en*, Okulomo *so-no*, Mandingo gr. *so-lu*, *su-li* &c., Woloff *dsu-dom*, *dsi-rom* in 6, 7 &c., [Kiamba *ku-dom*, *ku-lum* 1], Felup *fu-to-gen*, Filham *fu-toh*, Dahomey gr. *a-to*, Nufi gr. *a-tu*, *gu-tsu* &c., Ibo gr. *i-so*, *n-to*, Yagwa, Ham to, Aka-Igala, *a-ru*, *e-ru* &c. Eregba *i-thu* &c., See *b*, *c* and *d*, for other examples of the wide currency of *o* and *u* forms. To the Babylonian *su-su* of 40 Colonel Rawlinson has now enabled us to add *su-nnu* 2 (identical with the 3d pron. pl.), *tsu-du* 6, *ru-bu* 4, *su-ma-na* 8.*

(c.) The Galla and other forms with the final liquid *n*, *ana*, *lu* &c. have so wide a range that they must be considered separately and more fully. Sha-n, *shu-n*, *za-n* Saumali, Galla, *ko-n* Shihō, *ko-no-gon* Dankali, *ta-no* Suaheli, *i-da-no* Ki-Kamba (de-n in 6), *za-no* Ki-Nika (*ha-n*, *ta-n* in 6), *ma-ta-nu* Makua, *mu-sa-nu* Mudjana, *n-hya-nu* Makonde, *vi-ta-nu* Takwani, *sa-nu* Masena, (*a-n* in 6), *sha-nu* Sofala (*ta-n* in 6), *tha-na* Masambiki, *tha-nu* Dalagoa Bay, *n-ka-no* Nyambana, *txla-nu* Zulu, *txla-ru*, *cha-nu* Sechuana, *hla-nu* Kosah, *ta-nu* Benguela, Angola, Kongo, Kambinda, *bi-ta-nu* Mundjola, *sa-nu* Sonho, Bunda, *ma-ta-n* Camancons, *al-to-ng* Kerapay, *e-tu-ne*, *i-ti-en* Karaba, *o-ta-ni* Rungo, *so-ni* Calbra, *ue-ti-n* Moko, *bi-ta-n* Kaylee, *bu-ta-n* Bongo, *ta-ng* Binin, *a-to-ng* Papah (Dahomey), *u-nu* Akripon, *nu-m* Akkim, *a-nu-m* Amina, *e-nu-m* Fanti, *i-u-nu* Ashanti, (probably from *mi-u-nu*, *mi*, *bi* &c. being prefixual in other numerals in this group), *m-u-n* Bullom, *m-u* Kru, *so-lu* Vei (the 1st element with *o* as in Papah, Calbra, Karaba, Kerapay, Shihō and Dankali), *su-li* Susu, (the 2d element with *i* as in some of the lower Nigerian and Gabun terms), *du-li* Sokko, *do-lu*, *lo-lu* Mendi, *lu-lu* Mandingo, *na-lu* Pessa, *la-lu* Kossa, *lo-lu* Jullunkan, *ngue-nu* Kissi, *ma-lu*, *a-ro* Yoruba.

The Hausa *bi-a t*, *bi-ar*, Kashna *bi-et*, Kallahi *vy-die*, Mallowa *be-a* strongly resemble some of the Gabun forms of the Zimbiana *bi-ta-nu*, *vi-ta-nu*. Kwallalifa has *ba-k-wi*. In the Galla-Zimbiana term the root varies from the sibilant and dental to the guttural, and in Mandingo the common interchange of the sibilant and liquid takes place, *solu*, *lolu*. Other liquid varieties are given by Koelle, *e-lan* Penin, *ili-ve* Mandara, *e-lon* Eafen, *be-ron* Mbofon, [= Hausa *biar*, *bial*], *kian* Nyambana, *ba-di* Pika, *fa-di* Bode, *ma-ru*, *a-ru*, *e-ru*, *e-ri* Yoruba gr., *e-lu* Igala, *ba-nu* Gwesa. Koelle also gives *be-tane* Nki, *mi-tan* Undaza, *be-ta* Murundo, *be-tai*, *we-tai*, Konguan.

The Galla-Zimbiana term is evidently cognate with the Semito-Libyan sibilant 5, with the *m* 2 replaced by the *n* 2. Comp. Berber *su-m-us*, *Kandinsu-m-os*, *Shillahsu-m-os-t*, *Timani tu-m-at*, *to-m-at*, *tsa-m-at*, *Dalla bu-su-me*, *Landomage-tsa-m-at*, *Limba ka-so-f* &c. The Galla *shu-n*, the Shihō and Danakil *ko-n*, *ko-no*, with some of the Zimbiana and west,

* But this may be the remnant of a term like *sum-os* (see c).

† On the prevalence of *u*, *o*, forms in the earlier Semitic, and their transference to Africa by the Babylonian-Himiaritic colonists, see p. 4.

ern terms, tso-n, dsu-en, tu-en &c. have the same archaic vowel. The Babylonian *kha-nsa* 60 is an Asiatic example of an ancient change of *m* to *n*. In Galla-Zimbian terms for 10 the Semitic compound occurs in both the *m* and *n* forms, *tu-m*, *tu-n*, *du-m*, *tu-m-un* &c. Galla *fam*; *ku-mi*, *ku-ni* &c. Zimbian; *ta-n*, *ta-mu*, *dso-n*, *dso-b* in other vocabularies. The Galla forms suggest that *tu-n*, *su-n* &c. may have been contractions of lost Semitic forms of *tu-m*, *su-m*, which took the nasal or plural postfix as in 2, in place of the sibilant (generally fem.). In the other Semitic and Egyptian terms in which the combination *kha-m* appears with the initial unit in the sibilant form, the labial has a final *n* (8 Sem.-Eg., 3, 10 Eg.). Kambinda has *sa-mba-nu* 6, *sa-mba-ida* 7, Kongo *ma-sa-mba-nu* 6, *a-tsa-mbo-adi* 7, Angola *sa-ma-nu* 6, *sa-mbo-adi* 7, Benguela *pa-ndu* 6, *pa-ndu-ali* 7. The *ida*, *adi*, *ali*, of 7 (5, 2) is 2. But the final *nu*, *ndu* of 6 is not the current 1.

It may be said that both 5 and 6 are variations of archaic forms for 1. The Zimbian *sa-ma-nu*, *sa-mba-nu* contains the same liquid root 6 and the same prefix, and might appear to be only an additional prefix. The liquid occurs with both prefixes in 2, *sa-ni*, *su-nu*, *s-roh* &c., *mba-ni*, *mba-n*; and if it has the power of 1 here it may indicate that the second series has commenced. There are remnants, however, of similar forms of 1 and the analogy of the other African systems, with the use of the 6 form for 5 in 7, might seem to support the conclusion that both 5 and 6 were variations of a term for 1. Comp. *gi-en*, *ko-n*, *gu-n*, *dsi-ni*, *ni-ne*, *n-no*, *wo-no*, *ke-bo-ne*, *ba-ne*, *va-ne*, *pa-le*, *wi-an*, *mo-re*, *ba-la*, *ka-lo*, *ke-le*, *pa-i-ni*, *pu-lo-lo*, *fa-no-d* &c. with the liquid forms for 2. The Shiho variation of the Galla 5, *ko-n*, is identical with the Akurakura 1.

The prevalence of the liquid unit as the radical element in 2 and its dual and plural power have been noticed. The terms for 5 more often resemble those for 2 and especially 3 than for 1, and it may well be that in 5 the unit also had the form appropriated to 2, or 3, because in 5 the unit had necessarily a plural or collective meaning, and in its original condition indeed was probably 3, 2. The Galla-Zimbian *sha-n*, *sa-n*, *sa-nu*, *ta-nu*, *ta-ru*, *ta-n*, *so-lu*, *so-lo*, *so-li*, *lo-lu*, *no-no*, *e-la-n*, *k-la-n*, are similar to the 2 of Semitic *she-ne*, *ath-in*, *su-nu*, *ta-r*, *te-r*, *s-roh*; and the cognate African terms *zo-le* (Zimb.), *ma-ra-n* &c. but the same form is the common 3, (1, 2), Semitic, Zimbian &c., and a comparison of all the dialects renders it clear that 5 was 3, 2, and that the terms now current generally contain 3 only.

(d). *tu-pa* of *isi-tu-pa* 6 Zulu, and *n-to-ba* 6 Batanga, has the same form of 5 with the labial for 2. In 8 and 9 it is preserved as 10 in the form *to-ba*. The form is similar to *tu-m* of (b.) and (c.), and to the Babylonian 3d pron. masc., *su-va*, *tu-f*.

(e). The Agau *ak-wa*, *ank-ua* (-*wa* postfix as in *lo-wa* 1, *sha-k-wa* 3) is an analogous term to (a.) It is probably a contraction of *shak-wa* 3.

(f). *ma-ku-s* Shangalla, *hu-ch*, *i-chi-sha*, *hu-che-sa*, *hu-cha*, Gonga gr. *te-su*, *di-dju*, *di-dja*, *di-ka* Nubian (comp. *di-k*, 1, Darfur). These are examples of the common double form of the unit, or unit and fem. postfix, used for 3 in Mahrah, Gara, Nubian, and Abyssinian languages &c. (3. B. c.). In the aspirate form *hu-cha* &c. the initial unit has the same form as in the Arabic and Hebrew 3d pron. (*ho*, *hu*). In the Gonga *hu-su-pona* 6, corresponding with *su-su* 90 of Babylonian, it retains its radical value as 1 (1-5, *so la-pona* 7, i. e. 2, 5, *hos-pona* 8, i. e. 3, 5,—3 being the same Semito-African sibilant unit). The term recurs in the Shabbe or Kakanda

of the Lower Niger as 1, in the compound prefix hoos-war- of 2, 3 and 4.

B. *ib* Bishari. This may be a form of the labial unit as in 3 *mih*, but it is probably only the archaic labial postfix as in 3 and 8, the root being elided.

C. *po-na*, *pu-na*, *Woratta*, *Wolaita* in 6 (1, 5), 7 (2, 5), 8 (3, 5), and 9 (4, 5), *fu-n* *Yangaro* in 6. This is the labial unit, but it may have been more immediately derived from the *she-men*, *she-mon*, form of 3 by contraction. In the *Kissi* 6 *ngom-pu-n* (5, 1), it has the same form. So *bu-l*, 1, *Bullum*. It also occurs in 7 of *Ki-Kamba mon-sa* (5, 1), and *Ki-Nika fung-ahe* (5, 1), and, with a form similar to the latter, in the *Tumali fun-as-an* 9 (10, 1) and *fung-en* 10. The *Darfur wi-ng* of 10 (in 20, 30 &c.) is the same term.

D. *lima* *Malagasy*. This term does not appear to be a Semito-African unit. In *Asonesia* it is used both as 5 and as a term for "hand", and the latter was probably its primary meaning in *Malagasy* also. It is a N. E. Asian term; and in *Zimbian* it is still current for "finger" and "toe" *lemi*, *hiemi*, *liam*, *lembu* &c.

Foreign Affinities.

The various forms of the most common Semito-African term, *kha-m*, *su-m*, *tu-m*, *sa-ma*, *sa-mbo* &c. are N. E. Asian *ko-m*, *Samoiede so-mb*, *so-bo*, *sa-ba*, *sa-m*, and *Mongolian ta-bun*, *ta-bu*, in which the labial is an archaic qualitative postfix. Forms with final *n* also occur, *tung*, *sun* &c. In the archaic Scytho-Chinese or E. Asian system a connection is also observable between these names for 5 and some of those for 3. The *Samoiede* and *Mongolian sa-m*, *sa-ba*, *ta-bun* of 5, agrees with the 3 of Chinese *sa-m*, and *Caucasian sa-mi*, *su-mi*; and the *Tungusian tung-ya*, *tong-na*, *Kamschatkan ton-ok* &c. (in 5, 8, 9) &c. with the 3 of Chinese *sa-n*, *Yeniseian tong-ya*, *dong-em*, and *Mongolian kol-m*, *kor-ba* &c. The *Ugrian* and *Turkish* 5, *vi-s*, *vi-t*, *vii-si*, *bias*, *bi-sh*, *bi-l-ik* &c. is 3 in *Turkish wi-sse* &c., *Japanese mi-tsu*. The *Caucasian chu-ba*, *chu-thi*, *chu-t* 5, is similar to the 3 of *Caucasian chi-ba*, *su-mi*, and of *Ugrian chu-d-em*, (in 6 *chu-t*), *ku-m* &c. The sibilant unit of 5 in *Japanese*, is a like form to the *Egyptian* &c. (*a*) and the double form (*f*). The labial unit (*C*) is used as 5 in *Ugrian* and *Euskarian*; and the *Indo-European* term may possibly be the same.

The adjacent *Caucasian chu-thi*, *chu-t*, *wo-chu-si* *Georg.*, *t'chu* *Circ.*, *chu-ba* *Awar* are analogous to Semito-African forms.

Obs. on the distribution of the terms.

5 presents a repetition of two of the roots for 3, the sibilant, guttural &c. with the labial, and with the liquid, *-s-m* : *s-n*. The form of the sibilant &c. with the labial postfix is evidently very archaic. It is preserved in other numerals also, and the cognate *Caucasian*, *Scythic* and *N. E. Asian* terms are proofs of its high antiquity. The Semitic final *s* (*kha-m-sa* &c.), like the final *n* of 2 (p. 16), appears to have been added in the Asiatic branch after the archaic Semitic system had been carried to Africa.

The archaic or pre-historic *u*, *o*, form of the Semitic unit appears to have been conveyed by a *Himyaritic* dialect to Africa, and to have been spread from the *Nilotic* province to the Atlantic, over the Northern and Middle regions. It probably preceded the later Semitic *a*, *i*, forms in *Galla* and *Zimbian* also. See the remarks on the *Egyptian* 3, *ante* p. 4. Since that page was printed the full *Babylonian* series of numerals, as given by

Colonel Rawlinson in the last no. of the Journ. of the R. Asiatic Society, has corroborated the inference that the definitive in the u, o, form was the primary unit of the Semitic system both in 1 and higher compound numbers. It is found in the Babylonian su of 2, 8 and 60, tsu of 6, and ru of 4. The Babylonian 5 has a later form, and probably replaced an archaic one similar to that preserved in African vocabularies, su-mu, tu-mu &c., to the Egyptian sho-m 3, and to the Gara thu-m, Bab. su-ma 8.

The Himyaritic and Agau-Mandingian sha-k-wa 3 is not found in names of 5 although preserved in Mandingian terms for 8 and in the Fulah 10.

The current Semitic forms for 3, tha-la, sa-la, sha-lo &c. Arab., Heb., Chald.; tha-th, shi-sh, so-s Himyar-*Nilotic*, are similar to the most prevalent African terms for 3 and 5. They have evidently spread from the upper *Nilotic* province over the rest of Africa, probably replacing the more ancient or northern *Nilotic* form with the labial postfix, in most of the vocabularies which had previously received it. Their use probably dates from the time when the liquid postfix superseded the labial in the Semitic 3. The dialect, perhaps a west Himyaritic one, from which they spread as a centre, must have used this form both in 3 and 5. The principal African diffusion of the t-t, t-n, t-l, t-r, l-r &c. forms is distinctly referable, first to their prevalence on the upper Nile, and then to the great Zimbrian dispersion over southern Africa and Nigeria, including the Chadda province and part of Mid-Africa conterminous with the Niger and Chadda basins.

The Semitic 5 in its archaic u form appears to have previously spread over northern Africa. Its presence in Dalla, (Egyptian), Berber, Shillah, Kandin, Fulah, Gadsaga (in 6) and in several of the languages of the Senegambian coast (Landoma, Timani &c.) is thus explained. It is found along the Semito-Libyan band from the Persian Gulf to the Atlantic.

Six.

In the Semito-African systems, as in most others, the terms above 5 are repetitions or compounds of those of the lower series. Six is 5, 1, or simply 1, or it is 3 (dual); seven is 2; eight 3; nine 4; and ten the second 5, or 5 dual. (2; 5; 5, 5; 2; 5).

The Semitic 6 is probably 3 dual. Nearly all the African terms are 5, 1,—the 5 or the 1 being sometimes elided. Some of the Eastern and Southern Zimbrian terms are 3 (dual); the others are 5, 1, or, by contraction, 5, or 1.

A. (a) s-ou, s-ov, s-oo (in 60 se) Egyptian. This is the sibilant definitive and unit, with a remnant of the labial postfix it has in 3 and 8, and probably had in 5. See C.

B. si-t, si-ta, se-te *fem.*, si-ta-ta *masc.* Arabic, shi-sh-shah *masc.*, she-sh *fem.*, Heb., shi-tta *masc.* she-t *fem.* Chaldee, tsu-du, (su-su 60) Babylonian; sha-t-id Gara, ha-t-id Mahrah, se-d-ist Amh., se-d-ishte Tigre, se-d-is Berber, shi-tta, shi-dda Hausa, su-th Shillah, zu-du Kalahi, [= tsu-du Bab.], z-du Bode, si-tta Emghedesi, se-tta Suaheli.

The unit occurs here in its double or fem. form, as in the Himyaritic and several African terms for 3 and 30. It is probably therefore to be considered not as a quinary term, but as the second 3 (3 dual). The Gonga 6 shi-r-ta, shi-ri-ta appears to preserve the liquid element of most of the Semitic forms of 3 (se-le-ste Tigre, sa-la-tha Ar. &c.) The Darfur sitta sun-dik appears to be a double term; sitta is the Arabic 6; sun-dik is the Gallo-Zimbrian 5 followed by the Darfur 1.

The Babylonian tsu-du, Kalahi zu-du, is a link between the dento-sibi-

lant and the liquid forms of the definitive, the former being the Himyaritic (Mahrab, Gara) and the latter the common Semitic form of 3. The 3 of Galla su-de, has the Bab. d of 6 as well as the u of the first element. The liquid form is also found in some African names for 6, Ndob so-lu, so-la, so-ro. This is the 3, sa-la, tha-la, sha-lo, she-lo, of Sem., with the Him. so; of Zimbian, ta-ro, ta-ru &c.; and of Mandingian sa-ra. It is also similar to forms of 3 found in 5, so-lo Boko, so-lu &c. Mandingian gr., and to the Semitic 10 a-sha-ra, a-sa-ra &c. The connection between 1, 3, (5), 6, 9 and 10 in the Semitic system is well illustrated by some of the Mid-African languages which also preserve the Semitic form of 10 in 3 and 6. Bornui gr. 1 las-ga, las-ge, la-ku, 3 yas-ge, yas-gu, 6 a-ras-ge, a-ras-gu; Calabar gr. 1 e-dsi, dsi-dsi, dse-t, 3 e-sa, be-sa, 6 sa-ga-tsa, a-sa-ra-sa, be-sa-ra-be-sa, e-sa-r-e-sa; Dsuku 1 a-tsu, 3 a-tsa-la, a-tsa-ra. In some of these forms 6 is obviously 3 dual. be-sa-ra, e-sa-ra, a-tsa-ra is the form of the unit preserved in the Semitic 3 and 10, Asonesian sa-ra 1 &c.

C. (a) su-ggoor Bishari, 5, 1. The sibilant unit su, she, se, represents 5 in 6, 7, 8 and 9 [See 5, A. (a)]; goor is a term for 1 found in nu-ggir 11. (See 1, A. e., g.).

dse-go, dso-we-goo Fulah (go, gōo 1).

(b) gor-ju, gor-go &c. Nubian; the same form of 1 as the Bishari goor.

(c.) ogu-su-ee, gu-tso-ai, to-ai Nufi gr.; 5, su, tso, to, as in the Egyptian and Bishari 6 (see 5, A. a); ai, ei, 1, for wai, wei (as in tnu-wei, another form) a contraction of weni.

D. dja-ha, dya, ja Galla. Dja-ha &c. may be a variation of the double sibilant of Semitic &c. as in 3. See also 5 A. f.

E. (a.) Peh Saumali, leheye Dankali, leh Shiho, er-de Dalla, el-el Tumali, ille Kuafi, hm-le-do, hm-le-g-bo, me-le-do Grebo gr. (5, 1). This is the liquid form of the unit as in Dalla ille, Agau lo-wa [1, B. e.]. Comp. also 3, le Ndob, ra Mfut &c. ili-ve Mandara, (see 3 and 5).

(b.) wa-l-ta, wo-l-ta Agau, fa-r-schu Nub., ba-li-wa-l Dselana, va-la Panwe. The liquid is the root for 1 in Agau lo-wa, la-gha, Nubian wa-r-um &c.; far-shu may be 1, 5, as di-su is 5. The most prevalent Nigerian 1 has the form of Dalla (er-de 6, ille 1), Tumali el-el 6 &c. Comp. 1 pu-lo-le Kan-yop, ke-le-n, ke-le Mandingian, e-li, e-ni Aka-Igala, la-ku Bornui (Agau la-gha) &c., ke-de-n Bode &c. The Kambali to-li, Ham to-ni, Yola e-ri, Penin e-len-daro are cognate terms (Bornui ti-lo 1, Shangalla me-te-1 1 &c.).

(c.) e-ni-na, e-ne, e-n, a-i-ne, u-ne &c. Malagasy, ene, ini, uno, ono, ana-m, inu-m &c. &c. in Asonesia [See 1. A. f.]. Aka-Igala e-ni &c. 1. It may be from the liquid 3 (5).

F. (a.) wo-ra, uo-ra Mandingo, wo-ro Jullunkon, Sokko, ro-wa Mpong-we. Woro appears to have originally represented 5 in this numeral, 5, 1, as it is found joined with 2 in 7 (Mandingian). (See 5 C.)

(b.) ma-i-fa Yoruba, e-va Yebu, a-wa Fanti [1, A.]

Koelle gives e-fa, me-fa, as the form in all the dialects of this group—Aka-Igala. It is not the current 1 of the group, which is me-ne, e-ni, e-li, i-ne in 1, and mo-ko, wo-ko &c. in 11 (Idsesa has o-ko 1). It is the double labial prefix as in some of the Zimbian forms of 1, and indicates the archaic currency of forms like me-fa-ni. Comp. ba-ne Gadsaga, ke-bo-ne Nki, fa-no-d Felup &c. The labial prefix is found as 1, 2 in several dialects. The double labial occurs in Zimbian terms for 2. The Calabar and

adjacent inland dialects have *be-ba*, *e-ba*, *e-we*, and some of the W. Zimb-
bian *bi-ba* &c. 2 (for *be-ba-li* &c.), and this form of the prefix is, by its
vowels, the same as the *me-fa* of the adjacent Aka-Igala 6.

G. *husu-pona*, *hosu-puna* Gongga (Woratta, Wolaita) 1, 5. (1, A. *h.*).
Although *hosu*, *hu-su* is 3 (*he-zza*), it here clearly retains its primary unit
power, for *pona*, *puna* represents 5 in higher numbers also, 7 (2, 5), 8 (3,
5), 9 (4, 5). In 8 the same form is used as 3 (*hos-pona*, 3, 5).

H. *den-tatu* Ki-Kamba (*i-tatu* 3), *han-dahu*, *tan-dahu* Ki Nika (*ha-
hu* 3), *an-hatu* Masena, *tan-hatu* Sofala, *ya-taru* Sechuana, *ban-tanta* Gu-
resa. These terms are 3, 3, as in Semitic.

I. *sa-ma-nu* Angola, Sonho, Bonda, [See 5, A. *c.*], *pa-ndu* Benguera
(*sa* elided), *ma-sa-mba-nu* Kongo, *bi-sien-mu* Mundjola, *sa-mba-nu* Kam-
binda, *ye-vala* Panwe (*vala* for *vata* 1).

Koelle gives several additional examples, and all in the W. Zimb-
bian group, to which the term appears to be confined,—*hi-sa-ma-na*, *bi-sa-ma-n*,
ge-sa-ma-n, *mi-sa-mu-nu*, *ba-se-mi-n*, *bi-se-mi-ni*, *p-sa-mba-nu*. These
variations are the same as in the Semito-Libyan 8, *sha-ma-n*, *tha-ma-ni* &c.
The Amharic and Gongga form, *se-mi-n*, is identical with the Mutsaya *ba-
se-mi-n*, Ntere *bi-se-mi-ni*. Both are radically 3, the Zimb-
bian dual based on the form of 3 preserved in Egyptian *sho-me-n-i* &c. Gadsaga has also *tu-mu*.
At the same time the *sa*, *ta* is the unit found in 5 and the second element *ma-n*,
ma-nu, *mba-nu* is similar to the Semito-Zimb-
bian *va-li*, *wa-l*, *ba-ne*, *mbo*, &c. 2.

K. (a). *ma-tanu* na ui *mo-dya* Makua, *m-zanayi* mo medi Mudjana.
vi-tanu no mo-si Makonde, *thana* mo-asa Masambiki, *nhyanu* na moji
Takwani, *nkana-yuna* Nyambana, &c. &c. (5 and 1).

(b). *i-ti-a-ket* Karaba (5, 1), *i-si* Ibo, 1 dropped, adday Kerapay, *e-
si-a* Fanti, *in-si-a* Ashanti, *e-schi* Amina, *e-schen* Akripon, *m-ischiang*
Akkim, *at-ugo* Papah of Dahomey (at, is from atong 5, Zimb-
bian,—*ugo* is the guttural 1 of Yoruba &c.), *ta-hu* Binin (tan 5, bo 1).

(c). *mu-i-edu* Kru (mu 5, du 1), *mein-bul* Bullom (5, 1), *ngom-pun*
Kissi (5, 1), *diu rom-ben* Woloff (5, 1).

(d). *ue-itah* Kissi (*itah* 1, *ue-tah*, *we-tah* Mendi, *ai-tah* Pessa, *dso-we-
go*, *iowi-ego*, *ie-ga* Fulah 5, 1).

The Isuwu or Moko group, to the N. of the Kongo-Angola, has the
eastern Zimb-
bian form 5, 1, or a dual form, generally much contracted. *bi-ta-
na-i* wote Baseke (comp. the contracted S. E. Zimb-
bian *na-i-modsi* for *ta-na ni modsi*). The other forms may have 3, or a remnant of it, *mu-to-
wa*, *pi-nto*, *nto*, *tu*, *nto-b*, *ntu-ru* (Comp. Mand. *ndo-lu* 5, i. e. 3, Zimb. *ta-
ru* 3). But it is more probable that *mu-to-wa*, *n-to-b*, is the dental form
of the Semito-Libyan 1 (Comp. the Shangalla *me-ta-ma*, *mi-ta-l* 1).

The other western and middle groups have generally the form 5, 1. e. g.
owa-ra-gon Akurakura, *ton-sar-mo* Usarawa, *e-len-daro* Penin, *be-ta-riok*
Murundu *be-ta-ndat* Konguan, *solo-do* Boko, *tsuf-unte* Limba, *kilan-gu-
duk* Banyun, *basi-modi* Pika, *hinon* Egbira, *ban-tanta* Guresa, *hm-ledo*
Grebo, *sun-dondo* Vei, *men-bul* Mampa.

L. *isi-tupa* Zulu; *tupa* here represents 5 apparently (5 A. *d.*); *isi* is the
substantival prefix. *n-toba* Batanga is the same term.

M. *wa-ta* Shangalla, 1, (*me-ta-ma* 1, *mi-ta-l*, Galla *ta-ha*, Himyaritic
ta-ut, *ta-t*, Gongga *i-ta* &c.), *fa-d*, *g-fa-d* Bulanda (*fo-du* 1.)

N. *bali wal* Dselana (2, 3 i. e. 2d 3, *bali* 2, *ba-ta* 3).

Obs. on the Distribution of the terms.

The Semitic 6 is exceptional in its formation as 3, 3. It is Irano-Scythic and not African.

Of the three Semito-Libyan terms for 3,—s-m; s-l; and s-o, s-t, t-t &c.; the first is obsolete in the Semitic 3, but is preserved in the Egyptian 3, the Semitic 5, and the Semitic and Egyptian 8. The Egyptian 6 may be a remnant of it, and from the close resemblance of the Kongo-Angola forms for 6 to the Semito-Nilotic for 8, it appears certain that the former is the archaic Semito-Libyan s-m form of 3. The Gadsaga tumu appears to be a distinct remnant. From the position of this dialect on the Senegal, its proximity to the North-African linguistic province, the North-African affinities of its other numerals, and the Semito-Berber form of tumu, it is evidently of the same era as the Egyptian 3, sho-m, and Berber-Timmani 5 su-mu, tu-m.

The second form s-l, s-r &c. is the current Semitic 5, and one of the Zimbian forms. As 3 it is found, in Gongga and a few of the Chadda-Nigerian vocabularies.

The third form is the Himyaro-Nilotic 3, common also in Zimbian. It is the current Semitic 6. In Africa it is not common. Some of the Northern forms are Arabic and evidently modern. But the Kalahi, Shillah and Bode mark the ancient presence of the Babylono-Himyaritic form of Semitic in N. Africa. Some of the E. Zimbian terms are also formed in the Semitic mode.

With hardly any other exceptions the African terms are quinary. Quinary terms are found in most of the proper Nilotic languages, and similar forms are, as usual, traceable in the West Nilotic or Nubian vocabularies. The Nigerian 1 in most of the groups is the Nilotic liquid; and the 6 of the Grebo group as of Dalla has the Dalla-Nigerian form of 1; Bornui has the Agau form in 6 as in 1; and the Bullum gr. has the Nubian. The Fulah guttural 1 of 1 and 6—preserved in 11 of the Aku-Igala group *mo-ko*, *no-ko*, *mo-ka* (Idsesa has it in 1 also *o-ka*), 1 of Ashanti *e-ko*, and in some of the Calabar-Gaboon dialects *pa-ka*, *mo-kò*, *yo-ko* &c.—is the Semitic *a-kha* [= *wa-kha*] in one of its archaic African forms. The E. Zimbian quinary terms are formed from the current 5 and 1, and do not appear to have spread. The W. Zimbian 5, 1, and 3 dual, are also confined to that group.

Seven.

The terms are quinary (5, 2, or simply 5 or 2).

The Semito-Egyptian 7 is the unit in the 3 and 6 form with the labial postfix, and at p. 7. I considered it to be 6 for 6, 1,—there being no traces of the Zimbian subtractive naming in Semitic to admit of its being explained as 3 (from 10). Mr. Koelle's Zimbian vocabularies, and the identification they have enabled me to make of the names for 5 and 3, show that the Semitic 7 is not an exceptional trinal term, but quinary like the African ones. It is a contraction of 5, 2; and as 5 was itself 3, 2, and is represented in 7 by its first element, 3, the term is identical with forms of 5. Further, 3 was radically 1, 2, so that in the full original form the root for 2 must have occurred thrice [(1 × 2) + 2] × 2. The first element representing 5 is the ordinary 1 in its sibilant form *sa*, the second element, the labial *ba* representing 2, is from the labio-nasal 2 common in Africa and preserved in the Semitic 4.

A. sa-be, sa-ba, *fem.*, sa-ba-ta *masc.* Arabic, shi-bea *masc.*, she-ba *fem.* Chaldee, ha-ba-id Mahrar, shu-a' Gara, shu-ba-te Tigre, su-bha-t, se-ba-t Amharic, su-bha Darfur, sa-ba-ta, she-ba-ta Gónga, sa-ba Suaheli, se-t, sa-d Berber, sha-sh-f, se-fe-ch Egyptian, [zo-s-pi Euskarian].

The Zimbrian forms render it certain that the Semitic are 5, 2.

Moko gr. (Gaboon-Cameroons) sa-mba, se-mbe, sia-mpfa, (i. e. sa, se, sia from ta-ni, tea &c. 5; mba, mbe from mba, mbe, ba 2); Mfut ta-be (ta from ta-n 5 as in ta-fag 6 i. e. 5, 1, ta-ra 8 i. e. 5, 3: be 2); Ndob sa-mbe (sa-n 5, mbe, be 2); Bute ta-bam; Yagwa to-mva, (nto 5, mva 2); Dahomey gr. te-we (a-to 5, owe, eve 2); Kongo-Angola gr. sa-mboadi, sa-mboat, sa-mbat, sa-mboal, tsa-mbodia, sa-mboali, tsa-m, ndza-mi, sa-mbids bieie, tsa-mbodia ta-nu, sa-nu, ta-n &c. 5: biwade, woale, baol, bieie, *tu*-wids, bol, miol &c. 2. These terms are composed of the first or more radical element of 5, and of 2 in its full form.

A still more prevalent Gallo-Zimbrian form preserves 5 uncontracted. *ma-tanu* na ui medi (5 and 2) Makua, *m-zana-zi-viri* Mudjana, *vi-tanu* na viri Makonde, *nyanu* na i-vidi Takwani, *thana pili* Mزامbiki, *n-kana-ti-vere* Nyambana, kam-biui Zulu, tan-na-peli Matatan, tanu na beli Kiriman. Mr. Koelle gives for Nzamban *k-lan ni zimbede* (*te-mbe-re* 2). In the Moko gr. Baseke has *bi-tane-ba*. The form is also common in the adjacent inland or Chadda-Nigerian tongues,—ton-sa-bari, n-sena-fa, tsin-dele, e-dsan-efe, *be-tana-iwa*, tanda-ra-mot, tson-ifa, o-ton-afa, &c. Nufi in the same prov. has *gu-to-aba*, *tnu-aba*, *ato-aba*, Okuloma sono-ma, Ham tor-fo [to-ro-ba Galla]; Mandingian so-lo-fere, sulu-firin, Ashanti solo-pla.

The Nilotic languages preserve similar forms.

sera-ma-b, Bishari, 5, 2; the Semito-Zimbrian se-ra 3 for 5, as in 6, 8, 9; ma-b 2, from *mal-nb* Comp Mandingian sora-pere.

to-r-ba, to-r-b Galla, t'du-bah Dalla, ko-lo-du Nubian, tu-l-ur Bornui; to-r, ko-lo is the Semito-Zimbrian 3 (1, 2); ba and du 2.

mel-nene Dankali, mel-hen Shiho, bar-de Dalla; the 1st element is 2, fell-ad Nubian, mar-ko Tumali; the 2d is merely the nasal and dental postfix.

The Zimbrian sa, ta, of sa-mba, tsa-m, ta-be &c. is the sa, ta of ta-n, sa-n &c. 5. But the Semitic sa-, ha-, su-, sha-, she-, se- differs in form though not in root, from the first element in the current Semitic 5, kha-, khe-. But the African forms in 5 ha-, su-, tu-, preserve examples of the forms used in 7.

B. (a.) li-nye-ta, la-ngi-ta Shangalla, la-nga-ta, la-m-ta Agau. The Agau 2.

The Mid-Nigerian lo-ba is a contraction of the Boko solo-p-la 5, 2, so-lo being a Chadda-Nigerian and Mandingian form of the Semito-Zimbrian 3 and Zimbrian 5. Mandingian has solo-fere &c.

(b.) la-pona, la-puna, na-fun (2, 5) Gonga; the Gonga, Agau and Galla la of 2 (5 G.).

C. mon-sa Ki-Kamba, fung-ahe Ki-Nika. The labial 5 as in b [5. G.] with the sibilant 2.

Bulom gr. mena-tsin, Mandinge woro-fela, woro-nlo, wo-fela, Grebo gr. mu-leso, hm-leso &c., Mpongwe ora-genu.

The sibilant 5 (3) with the labial prefix occurs in some of the Nigerian vocabularies, ba-dsi-belu (5, 2) Karekare (ba-nlo Pika), me-dse, e-dse Aka-Igala (5), pa-dsi-na pulo Bola gr.

nabi-shana Kuafi, 2, 5; shana is the Galla-Zimbian 5, and *na-bi* a contracted form of the Zimbian 2.

D. bok-woi, bak-si, boek-wa, bek-ai, wok-oi Hausa (5, 2). Kwailifa has bakwi 5, (3, 2) and Hausa bu-ku, u-ku, ku-an &c. 3, (Bornui-u-gu, u-ru).

E. fi-tu Malagasy; a form of 2 similar to several occurring in African languages for 2 and 4 (2 dual), and therefore cognate with the preceding terms in which the labial 2 is used for 7. The 4 of Malagasy *e-fa-t*, of Egyptian *f-tu*, and the allied African terms, are similar forms. It may however be 5 in a Zimbian form, bi-tan, fu-toh, (3 bi-tatu, ba-ta, be-sa, fu-ten &c.)

F. *g-fad gi foda* (6 and 1).

Obs. on the distribution of the terms.

The full forms current in most of the Zimbian vocabularies cannot have been derived from the contracted Semitic ones. They represent the archaic Semitic forms, and preserve both the Semito-African forms of 3, *s-m* &c. and *s-n* &c. They former keeps its place in the common Semitic 5 as well as in 8, and belongs to the era of the Egyptian 3. The latter belongs to the era of the current Semito-Zimbian 3 and Zimbian 5, and appears to have spread from the upper Nile (Bishari, Galla.)

Eight.

Most of the terms are quinary (5, 3). Some of the Zimbian are quinary, some are 4 (dual), and a few are 2, 10.

A. *tha-man*, *sha-man fem.*, *tha-ma-ni-ta masc.* Arabic, *she-mon-ah masc.* *she-mon-eh fem.* Hebrew, *te-man-ja masc.*, *ta-mn-e fem.* Chaldees, *tha-man-id* Mahrah, *thu-m* Garo, *she-mun-te* Tigre, *se-min-t* Amharic, *se-min-ta*, *shi-min-ta* Gongga, *the-man-ia* Darfur, *sh-men*, *sh mun*, *sh-mun-e*, Egyptian, *te-m* Berber, *te-mp-t* Shiilah, *du-ba* Tumali [du = su, tu], *mai-sa-wa*, *do-sa-wa*, *mai-sag-wa* Mandingian gr.; 3 or 5, 3.

B. *sumhai* Bishari, 5, 3 (su for 5, mih 3). Probably the term is the same as A; mih 3 may be a contraction of a term like *su-mhai*, a variation of the Egyptian.

C. *sa-di-et*, *za-di-et*, *se-de-id* Galla, Saumali, (3 of Galla &c., Semitic), *shi-dan-ha* Kallahi, *si-dda* Kwollalifa, *se-re* Masena, *Sofala* [Galla *se-gi*, *se-de*], *se-tti* Soko, *se-ri* Mandingo.

Zimbian and Mandingian forms preserve the preposed 5, *k-lan ni ze-ra-ro* Nyamban, *tan-na-taro* Matatan, *bi-tane-bi-tads* Baseke, *dsowe-tati* Fulah, *son-tatat* Limba, *sun-sag-ba*, *solo-ma-sare* &c. Mandingo gr.

D. *ba-ha-ra* Danakil, *ba-h-r* Shiho. This is 4 dual, 4 itself being 2 dual. It is the common labial term for 2 found in the Galla family in 2 and 4. The Malagasy *valu* 8 is the same term. The final u is that of the Bishari *malu-b*. [See 2, B. c.].

E. *su-gua-ta* Shangalla, *sa-gho-ta*, *sa-gha-ta*, *so-ho-ta*, *so-ta* Agau. The Agau 3.

See C. The Nubian form of *sa-ra* is also found without the preposed 5 in Gadsaga, *se-gu*.

F. *quon-que-dah*, Dalla, 5, 3; quon, which recurs in 8 and 9, is the form of 5 in Shiho &c. kon. In quedah for sette 3 the sibilant becomes guttural, as in the Gongga 3 *ke-dja*, *ke-s* &c.

G. *hos-pona*, *hos-puna* Gongga (3, 5). The same form of 3 occurs as the unit in 6 husu. 3 is *heza* &c.

H. nan-giri Yangaro; giri probably corresponds with gin of iz-gin 9 which is the gal, gala, of the Galla family; nan appears to be the Chadda-Nigerian and Zimbian 8 and 4.

K. e-du, i-du, Nubian. The root e, i, is probably a contraction of is, 3, Darfur. 9 is u-e-d.

L. wu-sku Bornui (wu-ku 3 Hausa, ya-sga 3 Born.).

N. ta-ko-as, to-ko-s, to-ku-s, to-gu-s Hausa; ta-ko 3 for 5; as, 3, as in a-to-asa Nufi.

O. (a). m-i-tanu na ni ma-raru Makua, m-zana-zi-tatu Mudjana, vi-tanu na vi-raru Makonde, nhyanu na i-tatu Takwani, n-ka na-ti-naro Nyambana (5 and 3).

(b.) The following are contracted Gallo-Zimbian quinary terms, ye-ve-tayh Panwe, is-ieti Kuati, e-tye Fanti, iti-ita, ete-atah Karaba, itte-iate, Moko, as-atu Ibo, attja-tong Papah, enni Kerrapay, mui-eta Kru, auo-tui Ashanti, de-sas Timmani, dui-rom ni-at Woloff, ngom-mag Ki-si, me-ni-ra Bullom, ta-ra Binin, suli-ma-saka, sagi &c. Mandingo group, no-a-gui, anguee, uguee. Amina &c., ogu-tu-tar Nufi, e-yo Yebu, ma-jo Yoruba.

P. na-ne Suaheli, Ki-Nika, nia-nia Ki-Kamba, bo-na-ni Zulu, kie-na-na Benguera, a-na-na Kongo, na-na Kambinda, na-ne Sonho, na-nai Mpongwe, (4 dual; see 4'E).

Koelle gives several additional examples of this form, e-ne-ne Aleg, ne-ni Ndob, na-na Basunde &c, e-re-ri Egbele &c. &c.

Q. toba meni-mbina Zulu (10 less 2). This is a second Zulu form in which toba represents 10 as in 9, toba no monyi, 10 less 1. Bina is properly 4 (Takwani, Mundjola &c.), but it is here evidently a corruption of ma-bini 2. R. The Sechuana hera menoana me-beri is formed in the same way, hera being the term for 10 as in 9.

S. (a). mboxo, boz6, po-hlongo Kosah, mpuo Mundjola, poamo Mut-saya, woam Ngoten, fomo, fama, fomi, fam, fom, fan, lo-mbe &c. Moko gr. 10 (a contraction of 2 from 10).

(b.) owa-mbi Batanga (10, 2). See 10 E.

Kongo-Angola nake, nak, bi-nak, di-nake. This appears to be a contraction of 2, 10. Bangun has ha-nak 2, kila-ga-nak 7, ha-lak 10.

T. danda-fudu Ngodsin (fudu 4), fi-fedu Karekare, pordo Pika (4).

U. dogar-so Baghermi; so 4 (dogar-mi is 9, i. e. 5, 4).

Obs. on the distribution of the terms.

Considerable variety is manifest in the modes of forming 8. The most common is the quinary. The Semitic term preserves the sibilant-labial 3 of Egyptian. The Nilo-Nigerian band has both this form and the s-r, s-d, or current Semito-Zimbian, 3. The Mandingian forms are of Arabian and not of Zimbian derivation. The cognate Zimbian 3 (of Nubian origin) is also found in some of the Zimbian terms for 8.

Dual forms are found in East Nilotic vocabularies, in Mid-African and in West Zimbian. The last are referable, not to the current 4, but to the double form found in some Chadda-Nigerian and in the Mandingo vocabularies, and preserved also in the Yangaro nan-giri. It is, the Semito-Nigerian nasal form of 2.

The forms 10 less 2, and 10, are only found in a few Zimbian dialects. They are too rare to indicate any specific affinity with Asiatic languages which possess such forms. But they render it probable that the archaic

Semito-Libyan system, like the cognate Scythic, used different modes of expressing the numbers above 5, before the terms for them became concreted and contracted. Thus six was probably 5, 1 and 3, 3;—seven 5, 2; 3 from 10; 6, 1;—eight 5, 3; 4, 4; 6, 2; 2 from 10. In some of the vocabularies two forms are still current, e. g. Tiwi has for 6 *witan karmon* 5, 1, and *a-tara-tar* 3, 3.

Nine.

Most of the terms are quinary (5, 4). Some are 10, 1, or simply 1, i. e. 1 short of 10.

A. *ti-s'*, *ti-sa' fem.* *ti-sa-ta masc.* Arabic, *ti-sh-ah masc.*, *te-sha fem.* Heb., *ti-sha' masc.*, *te-sh'a fem.* Chaldee, *sa-id* Mahrah, Gara, *ze-tti* Amharic, *ze-te-in* Harragi, *za-te-na* Gafat, *ti-sha-te* Tigre, *dje-ta*, *yi-dea* Gongga, *ti-si* Darfur, *ti-sa* Kandin, *p-si-t*, *p-si-s* Egyptian, *p-is* in 90.

sa-sa Shangalla, *se-s-ta*, *se-ssa*, *tsai-cha*, *si-cha* Agau (*se-dza*, *si-za* &c. 4).

All the forms of A appear to be 3 dual, 4, or 4, 5. The Egyptian term, as Lepsius has indicated, is 4, 5, *p-si* 4, *s* 5 (90 *pes-tau*). The upper Nilotic *se-s*, *sa-sa*, are found in 4 and the form is the Himyaritic 9.

she-dig Bishari 5, 4 (*uddig* 4).

sa-gg-al, *su-gg-al* Shiho, Saumali, Galla, *se-ga-la* Danakil, *sa-l* Kuafi, *ta-ra* Hausa, *iz-gi-n* Yangaro, *is-ko-du* Nubian; *sa*, *su*, *se*, *iz*, the common Semito-African contracted form of 5; *ga-l*, *ga-la*, *gi-n*, *ko-du* is not a current E. Nilotic 4, but it is the common Semito-African root of 2, 4, with the guttural prefix as in the Abyssinian form of Semitic *ki-le-te* &c., in the Zimbian *ko-le*, *kua-ra* &c. In some of the remote Nigerian languages it is retained both in 4, 8 and 9; 4 *ku-ba-he-d* Filham, *ke-ba-k-r* Bola, *ke-wa-g-r* Sereres, *ku-ba-ke-r* Kanyop; 8 *ba-ki-rei* Bola, *ba-gi-rei* Sereres, *ba-ka-ri* Pepel; 9 *kanyem-ga-lo* (5, 4) Bola, Sereres.

quon-telle Dalla (5, 4, *selle* 4. See 8 F.).

hodu-pona, *hodu-puna* Gongga (4, 5).

u-e-du Nubian; uncertain, *e-du* is 8.

fun-asan Tumali; 5, 4, as in Eg.; or 10, 1.

The E. Zimbian, like the Semitic and Nilotic, terms, are 5, 4, and most of the Mid-African are also quinary. *ken-da* Suaheli, *Ki-Nika*, *i-ken-da* *Ki-Kamba*, *toba* no *mony* Zulu, *k-lan ni mone* Nyamban, *ma-tanu* na *vi ma-shehe* Makua, *m-zana*, *tyetye* Mudjana, *vi-tanu* na *vi-m-nai* Makonde, *nhyanu* na *i-tyetye* Takwani, *ogu-t-war-ne* Nufi, *e-mu-na* Fanti, *ia-nin* Binin (*nin* 4), *atj-eene* Papah (*enne* 4), *me-in-nehol* Bollum (*nenol* 4), *de-an-li* Timmani (*pan-li* 4), *diu-rom* anet Woloff, *suli-ma-nani* Kissi, *dse-nai*, *dso-we-nai* Fulah, *ta-ra* Hausa, *solo-ma-nani*, *su-nani*, *mai-nan*, *ko-non-to* Mandingo gr., *Bulum*, *mena-hiol*, *ku-dsidsi* Kambali, *i-si-ri* Sobo, *chi-ri* Binin, *i-te-rena* Iscoama.

si-vi Malagasy; *si* for 5 as in many African languages (*si*, *se* &c.), *vi* the Zimbian contracted 4 and 2 (as in *be*, 2, *Ndob*, *Mfut*).

The most common West Zimbian term is 1 (for 1 short of 10), *di-voa*, *bi-vo*, *yi-vo*, *i-v*, *i-voa*, *e-voa*, *voa*, *bua*, *vua*, *a-bo*, *a-bog*, *si-po*, *i-fi*, *ve*, *de-bua* &c. Full forms are found in Sechuana, *hera mono-ana monga-hela* (10 less 1), *Mpongwe*, *ina-gomi*, (*i-gomi* 10), and *Orungu seni-homi*. Benguela has *kic-kui* (*kui* is 10, the term for 1 dropped), *Okam soro-wono* (10, 1), *Akurakura osuwe-asob* (1, 10), *Ham mbon-kob* (1, 10) &c.

The Buduma heli-gar, Bornui le-gar appears to be 4, 5^{*} (Buduma herai 4). A similar collocation and the same root for 5 occur in the Ekamtulufa ele-gale, Udom ale-gale 8, i. e. 3, 5, e-ne, be-le 3.

Ten.

The archaic full form of the Semito-African 10 was 2, 5 (i. e. 2d 5.— 5, 2, being 7). A few examples are still extant, e. g. mar-kum Shillah, bi-m-bad Pika, di-sin-yane Pepel, bela bue, bla-bue Grebo gr.; but the common forms are contractions, 5, or 2.

A. (a.) a-sha-r *fem.*, o-sha-ra-ta *masc.* Arabic, a-sa-ra-h *masc.*, e-se-r *fem.* Hebrew, es-ra-t Babylonian, a-s-ra *masc.*, a-sa-r *fem.* Chaldee, a-ish-ri-d Mahrah, ish-ri-d Gara, as-ur-te Tigre, as-ra, as-ir Amharic, a-shi-ra, a-si-r Gongga. ha-la-h Banyun. This is the Semitic 3, but as 10 cannot be from 3, and as the common African 10 is 5 (dual), and 5 is 3 (for 3, 2), it results that in the archaic Semitic system, both forms of 3, s-m and s-n, s-l, s-r, were current for 5, as in Africa. For the African forms of (a) see (b and a).

(b and a) men-t, mn-t, me-t, *fem.* me-t-i, me-t-e Egyptian; 5 dual. This is the other Semito-African 5 and 3 in a contracted form (sho-men-t, sho-me-ti &c. 3, Eg., su-mu-s 5 Berber &c., tha-man, she-mon &c. 8 Semitic, sh-men Eg.). The full form is retained by upper Nilotic languages, and as both the m and n forms occur in the same dialect, I place them together.

tu-mu-n Bishari, tu-ba-n Dankali, tu-be-n Shiho, to-mo-n Kuafi, ta-ma Woratta, Wolaita, di-ma-ga, di-m-nu Nubian, tu-n (in 40, 50 &c.), zu-n (in 30) Shiho, tu-n, du-n Saumali (20, 30 &c.), tu-na (in 20), du-m (30), tu-m (40, 50), tu-ma (60, 70, 80, 90) Dankali, tu-mu Gadsaga, du-ob Anan, dso-b Akurakura, Okam, di-om, do-m, Moko gr., ta-mon Serakoli, to-ng Mandingo, ta-n Vei, Jullunkon, (ta-n 5 Zimbrian) ta-ng Sokko, to Kissi, to-fa-t Timmani, (to-mat 5), i-du Ashanti, Fanti, e-du Amina, Akim, u-e-du Akripon, te Binin.

The Fulah sak-po, sa-po, Kambali hok-pa, is the same form of 3—Him-yaro-Nubian—that is found in the Mandingo gr.

It is remarkable that while the forms of the Southern Zimbrian dialects adhere to the Galla variety, both in the initial element and postfix, the most prevalent West Zimbrian and Sudanian term returns to the Semitic form of 5 in both. The full form is preserved in mar-kum Tibbo (2, 5), mulo-go, le-gumi S. E. Zimbrian, ku-mi Suaheli, Ki-Nika, Tak-wani, Masena, Sofala, Angolo, Mundjola, Kambinda, i-ku-mi Ki-Kamba, di-ku-mi Mudjana, ma-ku-mi Makonde, i-ku-me, ko-mi Nyambana, i-shu-mi Kosah, shu-me Sechuana, ku-i Benguera, kwu-ni Angola, shu-mi Sonho, shu-nhi Bunda, i-to-mi Mpongwe, e-ka-me Kongo.

In the Moko group, the initial particle has the variations d, l, r, g, h, di-om, i-do-mi, i-lo-mi, ho-ro-m, a-rum, gum, i-ho-mi. The same forms occur in Sudanian vocabularies, mar-ku-m Tibbo, gu-ma, go-ma Bode, go-ma Hausa. They occur also in the Chadda-Niger prov., lu-m Dsarawa, du-ob Anan, o-za-be, o-ta-be, za-be Koro, ko-b Ham, u-ko-b, n-ko-b Yagwa, dsu-m Mandara (in 11 &c.), mi-ku-m Undaza. They are also found in the Senegambian prov., Limba ko-f [=ko-b Ham], Baga to-fa-t, to-fa-ts, Ashanti gr. o-ku-ru, ku-li.

The guttural forms depart not only from the Semitic 10, but from the Zimbrian 5, and approach to the Semitic guttural 5, kha-mi, of kha-ta-ish,

kha-m-is &c. But the vowel of the initial is the archaic Semito-African *u* of the definitive and unit (hu, su, tu &c.), as in the N. African form of the Semitic 5, su-mu &c. The original of the *m* form, in all its varieties, is the Semito-Libyan guttural. dental or sibilant definitive and unit as applied to 5, followed by the labial or masculine postfix, and in some cases with superadded postfixes of number or gender.

(c.) ku-dh-an, ku-du-n Galla; this appears to be du-n &c. of *b* (the Zimbrian 5), with the guttural prefixed. The Dalla qulla kudde conjoins the Galla term with another.

B. (a.) *man*-ku-s Shangalla (5 in the common Himyaro-Nilotic 3 form, See 5, A. f.)

(b.) chi-ka Shangalla, Agau, tsi-ka, su-ka Agau, ta-cha Gongga (ib.).

C. The root for 2 only is preserved in a large number of the vocabularies, bure Nubian, fung-en Tumali, wing Darfur (in 20, 30 &c.), mer-ava Berber, mar-ow Shillah, mar-au Kandin, [mar-kum. 2, 5 Tibbo]; Landoma maran, Moko gr. *u*-wom [e-vuo Ngoala must be 9, *de*-bua, bo, e-vou, *i*-vua, *bi*-vo, *di*-voa &c., ntsera is given as 11, but it is used as 10 in higher numbers]; Ndob wum, wuom, owum, Mbe wum, Nso yum, Tiwi puo, Konguan bu (2 in Hausa), Atam (Chadda-Niger) womo, ewuwo, bofo, opoa, opa, ubo, bo, Biafada *nu*-popo, Padsade papo, Nalu *te*-bele, W. or Upper Nigerian *fe*-r, *hi*-ru, *fu*-ra, pi, fi, Lower N. *i*-li, *i*-ri, *ig*-be, Nufi *e*-wo, *a*-wo, &c.

The Aku-igala *me*-wa, *e*-wa appears to be the double prefix of the Zimbrian 2.

The Malagasy *vu*-lu, *pu*-lu, Moko *bu*-l is a full form of the Zimbrian 2, similar to the adjacent S. E. Zimbrian *mu*-lo, W. Zimbrian *bu*-ol, *bo*-l &c.

In the Grebo gr. *vu*, *pu*, *pue* appears to represent 5 and not 2, *belabue* (2, 5) occurring in (Ibe. Hence the Mandingian *pu*, *pu*-go, *pfun*, *fu* may also stand for 5. (The other current term *tan* is 5). In the same western range the Mampa *wan* is 5 man).

Sudan bim-bad Pika, bum-bad Karekare 2, 5, (bad 5, bi 2 is Zimb.).

The Bulanda *g*-fad nign *ta*-sila is "6 and 4."

The Bidsogo *woru* ago is probably 2, 5.

The Woloff *fuk* appears to be referable not to fog 1 (Nfut &c.) but to *fat* &c. 2.

The Zimbrian term is of upper Nilotic origin. The full form *mullo*-go Matatan, *mar*-ku-m Tibbo, has a Nilotic form of 2, and the 5 is also Himyaro-Nilotic in its vowel, *tu*-m &c. When the forms *tu*-mun, *ku*-mi, were adopted by the Nilotic vocabularies, it is probable that a similar form was current in that of the Semitic colonists from whom it was derived. The vowel of the common Zimbrian form *ku*-mi is that of the Hebrew and Babylonian 5, *kha*-mi. The Dalla *su*-me 5 and Egyptian *sho*-me 8 has both vowels. Shiho has them in 10 also, *tu*-be-n, and it is probable that Egyptian had both *sho* and *sha* in 10, as in 5 and 3. From the persistence of the *s*-m, *t*-m, *k*-m form in the Nilotic vocabularies, and particularly in Egyptian, for 3, 5, 8 and 10, it may be concluded that it was the principal form of the oldest Semitic colonists of the Nile.

The *m*-r, *m*-l, *b*-l &c. form of 2 is probably of the same age, as it is the common upper Nilotic and Zimbrian form for 2, and appears to have been associated with the *s*-m, *k*-m form of 5.

The *s*-n, *t*-n, *k*-n, *s*-l, *s*-r &c. form of 3, 5, and 10 probably became the principal term of a leading Semitic nation at a later period. As 3 it

appears to have been communicated by a Semitic tribe to all the Nilotic languages save Bishari and Egyptian, and to have spread over all Africa, chiefly through the Zimbrian movements. As 5 it must at one time have been used by the leading Semitic nation, otherwise it would not now be found in IO. In 5 it became the principal Nilo-Zimbrian term. For 8 the Semitic race adhered to the *m* form, but the same African tribes that had adopted the *n*, *r* form for 5, used it in 8 also. In 10 while the Semites have preserved the *r* form, most of the Africans have adhered to the older *m* form of the Egyptian 10 and Semitic 5.

SUMMARY OF INFERENCES.

1. The Semitic and the African numeral systems are connected by a common archaic basis and by the wide diffusion of later dialectic names and forms in different eras. They are thus, in a large sense, dialects of one mother system. The dialectic modifications have been great and repeated, and the result is that each of the existing systems is very irregular.

2. In the mother system the current definitives were the numeral elements, several definitives were used, and in their numeral applications they probably retained that power of distinguishing the genus of the substantive which they possessed as definitives. The system originated in an era when the monosyllabic definitives had not become concreted, and when they might be freely compounded. The basis was binary. The names of higher numbers were obtained not only by addition but by multiplication, and, when the denary scale was assumed, by subtraction also. The mode of indicating the higher numbers appears to have long remained arbitrary—so long probably, as the different elements retained their identity with the common definitives, and were not concreted in the compounds and phonetically unitised and modified so as to become separate words. In this stage each number admitted of being expressed in several modes,—the unit, for example, varying with the class of the object, while the definitives preserved their original applications, and afterwards arbitrarily, while several generic definitives continued current,—and six being three-three, twice three, or five-one. The full double series was (I.) 1; 2; 2, 1, for 3; 2, 2, for 4; 3, 2, for 5; (II.) 5, 1, or 3, 3, for 6; 5, 2, for 7; 5, 3, or 4, 4, or 3, 10, for 8; 5, 4, or 4, 5, or 3, 3, or 1, 10, for 9; 2, 5, for 10. In the concreted systems the name for 3—itsself generally a form of 2—became the most important, as a form of it also represented 5, the radix of the quinary names in the second series. The process of dialectic change consisted in a gradual impoverishment of the archaic abundance of roots and names, in the concretion of compounds into separate or independent words with the loss of one or more of the component roots, and in the substitution for the native dialectic names of others borrowed from the languages of influential tribes. This process destroyed the original homogeneity of the system in every dialect, and reduced each to a series of terms having only an obscure or a slight etymological consistency, save in those African dialects in which the names above 5 are still undisguisedly quinary. Some dialects still possess more than one name for the same number. Thus Borni has three words for 1,—*ti-lo* or *tu-lo*, *la-s-ge* and *pa-l* (*bu-r* in *bu-r-go-be*, *first*), and Tiwi has two for 6, *witan-karmon*, 5, 1, and *a-tar-tar* 3, 3.

3. When the numeral names became concreted and independent, they took the current definitive prefixes and postfixes of each dialect, and a new source of diversity and of phonetic change was thus introduced

These second *y* elements, in their turn, became subject to concretion; and the contraction of the compound has sometimes merged them in the root, and sometimes substituted them for it. New definitives have in certain dialects been superadded.

4. In their present condition the forms of the numerals vary greatly. In general they are polysyllabic compounds, in which the servile definitives are distinguishable. The archaic root compound, or compound of root and servile, is dissyllabic in many of the groups, but in some it has contracted into a monosyllable. Its form has suffered great and various modifications, rendering the correct analysis of the names difficult and at times uncertain.

5. The Semitic system is the last remnant of a dialectic group. It could not have attained its present form without changes having taken place in different dialects which influenced each other. In Africa several of such groups are still preserved, and the mutual borrowings are obvious. In addition to the changes thus induced, the Semitic system has, in different eras, affected the African, and some evidence is thus found of the existence of dialects of the former differing in certain names from the present.

Two well marked stages of the ancient Semitic system are disclosed by the African numerals. The second or later appears to have been an archaic form of the Babylonian and Himyaritic. Its vestiges are chiefly found in Northern Africa including the Nilotic province on the one side and the Senegambian on the other. Some of its forms penetrate deeply into Mid-Africa and are even found to the south of the Delta of the Niger. The first or older stage appears to have been that of the mother formation both of the Semitic and African systems. Both the archaic Semitic and the pre-Himyaric or pre-Babylonian African are referable to it. The influence of the later Himyaric is chiefly marked in the Abyssinian languages. That of Arabic is slight and evidently modern.

6. The definitives entering into the Africo-Semitic numeral systems are the same that form the pronouns, prefixes and postfixes &c.

1. The sibilant and aspirate, varying to the guttural, dental and even to the liquid, fem. in the Semitico-Libyan branch—with the exception of some archaic masc. *h* forms—and having, as a root, fem. applications in the Zimbrian branch, in which it is one of the principal definitives. As a 3d. pron. this particle occurs in the Semito-Libyan languages in various simple forms, *su*, *shi*, *sa*, *i-sa*, *es-se*, *-is*, *-s*, *hu*, *hi*, *ha-ha*, *-äh*, *-ha*, *ta*, *ti*, *i-ta*, *-ti*, *eth*, *th*, *-at*, *-it*, *-ith*, *-ta*; in compound forms, *fem.* *su-at*, *er-su-a*, *en-tu-s*, *en-te-s*, *n-tho-s* &c., *masc.* *su-wa*, *hu-wa*, *hu-ma*, *hu-mu*, *hu-m*, *he-m*, *ho-mu*, *en-tu-f*, *n-tho-f*, &c., *pl.* *su-nu*, *su-na*, *su-n*, *ho-n*, *he-n*, *se-n* &c. &c. Dankali, the Galla fam., Bornui, Zimbrian and Malagasy have *i-sa*, *i-si*, *i-ta*, *i-zi*. Similar forms occur in Berber and Egyptian. The same def. is a demonstrative and dem. element, and a prefix and postfix.

2. The liquid *n*, *l*, *r*. In the Semito-Libyan system it has acquired a plural force. But it also occurs as a prefix and postfix to roots used in the singular number, and it is still current as a sing. def. and demonstrative. In those African languages that have the largest basis of archaic Semitic it is a 3d. pron.—Galla, Emghedesy, Malagasy. In Egyptian it is the 3d. person assertive. In the Zimbrian system it is always singular, *li*, *lu* &c.; and in the archaic Semitic system it was prob. sing. or indef. originally.

3. The labial,—a 3rd pron. in Egyptian and Gonga; demons. and def. in all the branches, but a pref. or postf. only in Semitic. (save as interrogative and relative). It has a masc. and masc. pl. force in Semito-Libyan. It has a pl. force in Zimbrian, but it is also an important sing. def.

In Zimbrian the liquid (2) and the sibilant (1) sounds interchange dialectically to a considerable extent. Thus the def. pref. *si, zi*, of Kosah become *re* and *li* in Sechuana. In the Semito-Libyan system also 1 and 2 appear to have originally passed into each other.

7. In the numeral systems the same def. occur, and with similar variations. Semitic has in 1 the forms *ha, kha, hi* and *ta* (Him.), in its African forms also *hha, a, t*; in 2 the forms *su, ta, te, ath, ith, is, she, s*—African *the, si, ti*; *khe, ki, he, hu*; in 3 the forms *tha, sha, sa, she, shi, si, te*, Africa *ke, ka, k, sho, so, to*; in 5 the forms *kha, kho, kh, Africa su, tu, tiu, tie, au, a*; in 6 the forms *si, shi, she, tsu, sha, ha*,—Africa also *se, su, zu, z*, initial element,—*ta, te, sh, t, du*, Africa also *da, final el.*; in 7 the forms *sa, shi, she, ha, shu, Afr. also su, se, sha*; in 8 *tha, sha, she, te, ta, thu, Afr. shu, se, sh, t*; in 9 *ti, sha, sa, za, sh, &c.*; in 10 *sha, sa, se, ish, s*, in Af. *si, shi, ha &c.*

In the African systems the same definitive occurs, but less frequently. The variations are similar to the Semitic, but broad forms are more common than slender ones and contractions and inversions are rarer. Broad forms are also preserved in some of the Semitic dialects, and they appear to have been those of the archaic Semitic and of the primary Semito-African glossary.

2. The liquid *l, n, r* occurs in the Semitic 2 in the forms *na, ne, in, roh, r*, Af. *nau, nu, ng, li, il, le*; in 3, *la, lo, le*, Af. *ra*: in 4 *ar, ru*; and 10 *ra, ri, r*. In the African languages it is much more common.

3. The labial occurs as the 1st element in the com. Semitic 1 *wa, a, e*; as the 2d element in the Egyptian 3; as the 2d element in the Semito-Eg. 4 (archaically in the 1st also, it is probable); as the 2d element in the Semitic 5; as the 2d in the Semitic and Eg. 7 and 8; and as the 1st in the Eg. 10. It appears to have been secondary or servile only in the original system,—occurring both prefixally and postfixally.

8. *One*. The radical definitives of the unit in Semitic and all the African languages are the aspirate &c. and the liquid; and from the forms and distribution it is probable that they were originally variations of each other. The former, in its asp., gut. and dental forms, is the Semitic cardinal. In Africa it is also the com. Nilotic and Zimbrian root, chiefly in sibilant forms, but dental and guttural also occur. The liquid is preserved in the Arabic ordinal, and it is found in Africa in the Agau gr., Bornui and most of the Mid-African and Nigerian languages.

The labial pref., full and contracted to vowels, is found in Semitic, Egyptian, Berber, Nubian, Bornui and most of the Zimbrian tongues. Some of the latter and some of the Nilotic and N. African languages take other prefixes, dental, guttural &c. It is probable that in the oldest form of the Semito-African systems the prefix or separate def. varied with the substantive. Postfixes also occur in several of the systems. An example of the use of the labial both as a pref. and postf. is preserved in the Shangalla *me-ta-ma*.

Two. The primary root of 2 is the liquid. In the Semitic system it has only the sibilant prefix in 2. But the labial is preserved in higher numbers, 4, 7 &c. In African systems it has the full range of prefixes. In the Zimbrian fam. the labial is the most com., as it appears to have been in the earlier Semitic. The plural application of the liquid appears

to have arisen from its use as the numeral 2.

Three. The names for 3 are compounded of those for 1 and 2, and as a consequence, were capable of being varied to a considerable extent. The Semitic system had several terms. (A.) A prevalent one or one that characterised the earliest Babylonian—Himyaric dialect that influenced the Egyptian—was the sibilant in its archaic broad form *sho*, *sha* with the labial postf. The final *n* of the labial may be the plural postf. In the Semitic and Egyptian 8 it is also retained. The Semitic 5 takes final *s*. The radical elements however were the sibilant, dental &c. with the labial postfix, as this compound is a common representative of 3 in higher numbers 5, 6 (3 dual in W. Zimbian) 8 (5, 3), 10 (2d 5). It resembles some of the archaic forms of 2 more than any that are extant for 1. *Lu-me*, *lu-b*, *su-b*, *su-we* of Galla, Begharimi &c. are strongly in favour of the *sho-m*, *tu-m*, &c. of 3 having been 2, but the guttural forms of the Semitic 5 are in favour of its having been 1. (B.) The second extant Semitic 3 is the sibilant followed by the liquid; and the third, (C,) the sibilant reduplicated, but both appear to be variations of one archaic form, the sibilant passing into the liquid. In Africa these forms are very prevalent, the first element also sometimes changing to the liquid. All these variations are referable to that form of 2 which has the sibilant prefix.

Four is also 2 in different forms in nearly all the systems. The Semitic *arba*, Nubian *arum* appear to be contractions of forms similar to *ma-lu-b*, *ma-lu-me* &c. 2. The Bab. *ru-bu* preserves an archaic form similar to the Galla. The Bute *bi-ne-b* 2 (com. Zimbian *bi-ri* &c.) is an example of a slender form similar to that of the Hebrew ordinal *re-vi-hi* (*re-v=ne-b*). The *a-f-t*, *f-tu* of Eg., *fou-so* Tibbo, *a-fu-r* Saumali (*fu-a* Tumali in 9, i. e. 4, 5), *fu-lu* Kalahi, *e-fu-tai*, *e-fu-r* &c. of Malagasy are less contracted forms. The Zimbian 4 is also the liquid 2 with different prefixes. As *ba* represents 2 in 7 it is probable that it does so in 4 also, and if so the original of *ar-ba* must have been a reduplicated 2 in the form *bar-bar*.

Five is 3 (for 3, 2). Semitic has the A form of 3; but with the unit in its guttural form. Eg. has the dental form, but without the labial postf., 10 (2, 5) having the postfix without the root. The full form is found in 6, 7, 8 and 10 of various dialects. The com. Gallo-Zimbian term is the B form, and it is also preserved by Semitic in 10 (5 for 2, i. e. twice 5).

Six. The Semitic 6 is 3 (dual) in the C form. It is found in a few African tongues, variable to the B form, but with these exceptions the African 6 is quinary, 5, 1 or 1. In Gadsaga and the West Zimbian group 3 has the A form in 6.

Seven, 5, 2. Semitic has the A form of 3 (for 5) with the sibilant as in 3, and not the guttural as in 5. The Zimbian terms are the same, but they are less contracted, and preserve both the A and B forms.

Eight, 5, 3 in Semitic (A) and most of the African languages. *Danakil*, *Shibo* and several Zimbian dialects have 4 (dual); and a few of the latter have 10 (for 2, 10).

Nine. Semitic 3 (dual), C form. The African forms are 4, 5; 5, 4; and 1 (i. e. 1 from 10).

Ten. Semitic 5 (in the B form of 3) for 2, 5. Nilotic and N. African generally have the A form. Many vocabularies only retain 2.

The general Asiatic affinities of the numerals, the relations which they indicate amongst the different groups of the Semito-African alliance, and the light thrown by them on its history, will be considered at the conclusion of the glossarial illustrations.